Draft
Hiking Trails Management Plan
And Environmental Assessment

February 2001

ACADIA

National Park • Maine

United States Department of the Interior • National Park Service

Cover photo: Emery Path, Acadia National Park (Sieur de Monts National Monument), circa 1916.

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SUMMARY

The National Park Service (NPS) proposes a major initiative to rehabilitate and maintain hiking trails, and manage hiking throughout Acadia National Park. For many years, trails have deteriorated under high use and because of a lack of resources to maintain them. The number of trails maintained by the NPS has decreased over time. Acadia Trails Forever, a partnership between the NPS and Friends of Acadia, will now provide 13 million dollars of private and federal funds to rehabilitate and maintain trails. Based on recent historical research, the NPS learned the trail system is significant because of its high level of craftsmanship, design, and its community origins in the village improvement associations of Mount Desert Island. The Acadia National Park hiking trail system on Mount Desert Island will be nominated to the National Register of Historic Places. These recent developments resulted in the need for a plan to guide the rehabilitation and maintenance of trails, and to better manage trail use.

The primary goals of this Draft Hiking Trails Management Plan/Environmental Assessment (hereafter referred to as the Draft Plan/EA) are to protect natural and cultural resources, provide high quality visitor experiences, and make the trail system sustainable over time. A number of issues were raised in public workshops and in meetings with interested groups and persons over the last two years. The issues range from determining an appropriate size of the trail system to whether or not dogs should continue to be allowed on trails.

This Draft Plan/EA describes four alternatives. Alternative 1 is the No Action Alternative. This alternative describes NPS rehabilitation and maintenance as of 1999, without the benefit of the Acadia Trails Forever partnership. It is included only for comparing environmental effects of other alternatives.

All other alternatives share several common actions to better meet trail management goals. These include protecting those features that make Acadia's trails historically significant (such as highly crafted stone work), preserving connections with local villages, developing partnerships for trail rehabilitation and maintenance, providing Leave No Trace and trails history education, encouraging the use of the Island Explorer bus system, and protecting natural resources such as sensitive habitats and rare species.

Alternative 2 prescribes rehabilitation with emphasis on protecting natural resources. The size of the trail system on Mount Desert Island would be reduced by about 17 miles to 101 miles. A few historic trails would be rehabilitated to a high level of cultural integrity. No abandoned trails would be rehabilitated. On many trails, adding non-historic features such as boardwalks, fencing, and scree walls to protect natural resources would be more likely than in Alternatives 3 and 4. Trail reroutes and closures would also be more likely in this alternative. All construction materials would be obtained from outside the park and transported to work sites. Dogs would be prohibited from trails and other backcountry areas.

Alternative 3, the NPS preferred alternative, prescribes trail rehabilitation that balances protecting natural and cultural resources. Under this alternative, the size of the trail system on Mount Desert Island would expand about 8 miles to a total of 126 miles. Approximately 3 miles of existing trails would be removed from the system (abandoned), 9 miles of village connector trails created, 8 miles of abandoned trails reopened for use, and 4 miles of new trail constructed. Most trails would be rehabilitated to a high degree of cultural integrity. Some non-historic features would be added to trails to protect natural resources, but this would occur less frequently than in Alternative 2 and more than in Alternative 4. Direct conflicts between natural and cultural resources would be resolved on a case by case basis. Important features of abandoned trails would be stabilized to prevent further deterioration. Trail reroutes or closures would be less than in Alternative 2 and more than in Alternative 4. About two thirds of construction materials

would be obtained from inside the park and one third would be purchased and transported to work sites . Leashed dogs would be allowed on most, but not all, trails.

Alternative 4 prescribes rehabilitating trails with emphasis on protecting cultural resources. Under this alternative, the size of the trail system on Mount Desert Island would expand by over 40 miles to a total of 157 miles. No existing trails would be removed from the system (abandoned). Most trails would be rehabilitated to a high degree of cultural integrity. The addition of non-historic features to protect natural resources would be less likely than in the other alternatives. Important features of abandoned trails would be stabilized to prevent further deterioration. Trail reroutes or closures would also be less likely. This alternative would require the most construction materials; about two thirds would be obtained in the park and one third purchased from sources outside the park. Leashed dogs would be allowed on most trails.

Effects of Alternative 1 would include: continued trail erosion and widening; loss of many historical trail features and no restoration of trail system integrity; removal of about 3,262 cubic yards of materials from the park over ten years with a resulting 1.3 acres of vegetation disturbance; and some trails closed because they would be unsafe. There would be no effect on large habitat areas. Disabled visitors would not have access to trails.

Effects of Alternative 2 would include: reduced trail erosion and widening; preservation of some historic features but some loss of trail system integrity; no removal of materials from the park; natural sounds and quiet impacted by helicopter flights; wildlife benefit from creating large undeveloped habitat areas, avoiding sensitive habitats, and prohibiting dogs; some hiking trail experiences would be lost due to trail abandonment; and a few new trails would be created for disabled visitors.

Effects of Alternative 3 would include: reduced trail erosion and widening; preservation of many historic features and trail system integrity; removal of 10,950 cubic yards of materials from the park over ten years resulting in 4.5 acres of vegetation disturbance; natural sounds and quiet impacted by helicopter flights but less than Alternative 2; wildlife benefit slightly less than Alternative 2; more hiking trail experiences than Alternative 2 but less than Alternative 4; off-trail and abandoned-trail experiences decreased slightly from Alternatives 1 and 2; and a few new trails would be created for disabled visitors.

Effects of Alternative 4 would be similar to Alternative 3 except that: 12,670 cubic yards of materials would be removed from the park, resulting in 5.2 acres of vegetation being disturbed; vegetation clearing on CCC trails would be extensive; wildlife would be impacted by the habitat fragmentation caused by a much larger trail system; there would be more maintained trails for hiking but at the expense of hiking on abandoned trails and off-trail; and a few new trails would be created for disabled visitors.

This Draft Plan/EA will not address parking issues or the social or ecological carrying capacity of trails; parking and carrying capacity issues will require additional information gathering and planning.

Public comment on the alternatives presented in this Draft Plan/EA will help the National Park Service decide how to rehabilitate and maintain trails and manage hiking. A decision will be documented in a final *Hiking Trails Management Plan*. Interested persons are invited to review this document and submit written comments by March 19, 2001 to:

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PURPOSE OF AND NEED FOR THE PROPOSED ACTION

INTRODUCTION

The National Park Service (NPS) proposes a major initiative to rehabilitate and maintain hiking trails, and manage hiking throughout Acadia National Park. This planning process will establish goals for managing hiking trails, decide what trails are included in the hiking trail system, guide trail rehabilitation and maintenance, and shape the visitor hiking experience. It will also ensure that trails are sustainable for the long-term; that natural resources are preserved along trail corridors; and that Acadia's trail system, including individual trails and trail features, are protected as nationally significant cultural resources.

Until now, the NPS lacked the resources to maintain trails in an era of ever-increasing numbers of hikers, and did not fully understand the historic significance of park trails. For many years, trail development and abandonment in the park were haphazard rather than organized and integrated around established goals and criteria. The NPS also lacked information and resources needed to protect cultural features on trails. Many trails are in disrepair and continue to deteriorate, causing natural and cultural resource damage and creating safety concerns.

Acadia Trails Forever, a joint program of the NPS and Friends of Acadia[1] (FOA), provides the opportunity to rehabilitate and maintain park trails in a comprehensive manner, in perpetuity. Friends of Acadia raised $9 million from private sources, which will be matched by $4 million of federal funding. Six million dollars of Acadia Trails Forever funding will be committed to trail rehabilitation; the remaining $7 million will establish endowments to fund trails maintenance, and FOA sponsored Acadia Youth Conservation Corps and Ridgerunner programs, in perpetuity. Complete rehabilitation of the hiking trail system is expected to take ten years.

This *Draft Hiking Trails Management Plan And Environmental Assessment* (hereafter referred to as the Draft Plan/EA) applies to hiking trails throughout Acadia National Park. It focuses on managing trails administered by the NPS on Mount Desert Island (MDI) because information is now available about MDI trails based on recent historical research (NPS 1999a). The goals and general philosophy outlined in the plan for managing trails and trail use will apply to managing trails on the Schoodic Peninsula, Isle au Haut, and other park islands. Additional information about the history and significance of trails on NPS lands beyond MDI is needed before specific management actions are developed for these areas.

This Draft Plan/EA also addresses trails on private MDI lands that were originally constructed to connect local communities with the park. Working cooperatively with local landowners, communities, and individuals that use and maintain private trails will be essential for any actions related to trails outside the park boundary.

[1] Friends of Acadia is the park's formally recognized friends group, an independent non-governmental organization whose mission is to preserve and protect Acadia National Park and surrounding communities.

Only traditional pedestrian use of hiking trails is addressed in this Draft Plan/EA. However, because the motor road, carriage road, and hiking trails systems are interconnected, management decisions concerning adjoining resources may influence decisions about the trail system.

This Draft Plan/EA addresses which trails will be included in the park's mapped, marked, and maintained trail system based on established goals and criteria and a systematic review of each trail. The NPS must assure that the Acadia National Park trail system offers a diversity of high quality recreational opportunities for hikers. This Draft Plan/EA also addresses public education and the dissemination of information related to the trail system and its use.

This Draft Plan/EA provides several alternatives for rehabilitating and maintaining the hiking trail system and managing hiking in Acadia National Park. It also provides an analysis of the environmental and social effects of each alternative. It takes into account the rich history of trails on MDI, the protection of park resources, community and visitor needs and interests, and the economic realities of park management in the 21st century.

RELATIONSHIP TO OTHER PLANS AND PROJECTS

General Management Plan

The Acadia National Park *General Management Plan* (GMP) (NPS 1992) defines the basic management philosophy guiding park management decisions and identifies actions required to support that philosophy. Rehabilitating and maintaining the hiking trail system is a major goal of the GMP and hiking trails are mentioned in several recommended actions. In general, the GMP recommends the careful consideration of limited additions to the trail system; proposed new trails must meet the criteria of connecting to park campgrounds, towns, and villages and creating loops in heavily used areas. The GMP discourages the development of new parking lots or the expansion of existing parking lot capacities. Appendix 1 contains excerpts from the GMP pertinent to managing trails and trail use.

Connector Trails

This Draft Plan/EA is related to an ongoing project to develop additional connector trails to surrounding communities for pedestrians, bicyclists, and skiers. The connector trails project, derived from the GMP recommendation, was an earlier and less comprehensive planning effort. Since early 1997, the park, Friends of Acadia, and interested community members from Bar Harbor and Southwest Harbor have worked to develop connector trails. In April 1999, the public commented on an environmental assessment describing six proposed connector trails (NPS 1999b). The park released a decision document for these connector trails in July 1999 (NPS 1999c). Three of the six trails were recommended for development: the Great Meadow Loop (hikers only, now under construction), the Duck Brook Road connector (hikers only), and the Western Mountain Road connector (shared use). Decisions regarding two other trails were deferred to this Draft Plan/EA (the Gurnee Path and the Old Beech Hill Road), largely because of their cultural significance. The Jackson Lab/Sieur de Mont connector was rejected because it was considered too long and redundant, considering the development of the Great Meadow Loop Trail.

Draft Cultural Landscape Report for Acadia National Park, Maine Volume 1: Historic[2] Hiking Trail System of Mount Desert Island - History, Existing Conditions and Analysis
The purpose of the *Draft Cultural Landscape Report Volume 1* (NPS 1999a) is to document the history and significance of the trail system on MDI and to guide the future treatment of the trails. The report supports the objectives set forth in the GMP for Acadia National Park by evaluating the historic significance of trails on Mt. Desert Island and supporting the development of this Draft Plan/EA.

Draft Cultural Landscape Report for Acadia National Park, Maine Volume 2: Historic Hiking Trail System of Mount Desert Island - Treatment and Maintenance Guidelines
The purpose of the *Draft Cultural Landscape Report Volume 2* (NPS, in preparation) is to provide detailed guidelines for rehabilitation of trail features and for maintaining individual trails on MDI to allow for current intensive use and preserve historical integrity. The focus of this report is to provide treatment and maintenance guidelines that allow for the rehabilitation of individual trails while ensuring the historic significance and integrity of the system is not lost over time. The final *Hiking Trails Management Plan* will set the overall direction for managing trails and hiking. The final management plan and the treatment guidelines will work hand-in-hand to provide direction on trail management and maintenance issues, which are closely related.

Draft National Register Nomination for the Hiking Trail System, Acadia National Park, Maine / Historic Resources of Acadia National Park Multiple Property Listing
The *Draft National Register Nomination/Multiple Property Listing* (NPS 1999d) nominates the Acadia National Park Hiking Trail System to the National Register of Historic Places. It recognizes the high level of craftsmanship and design, and the community origins of the extensive and varied network of trails.

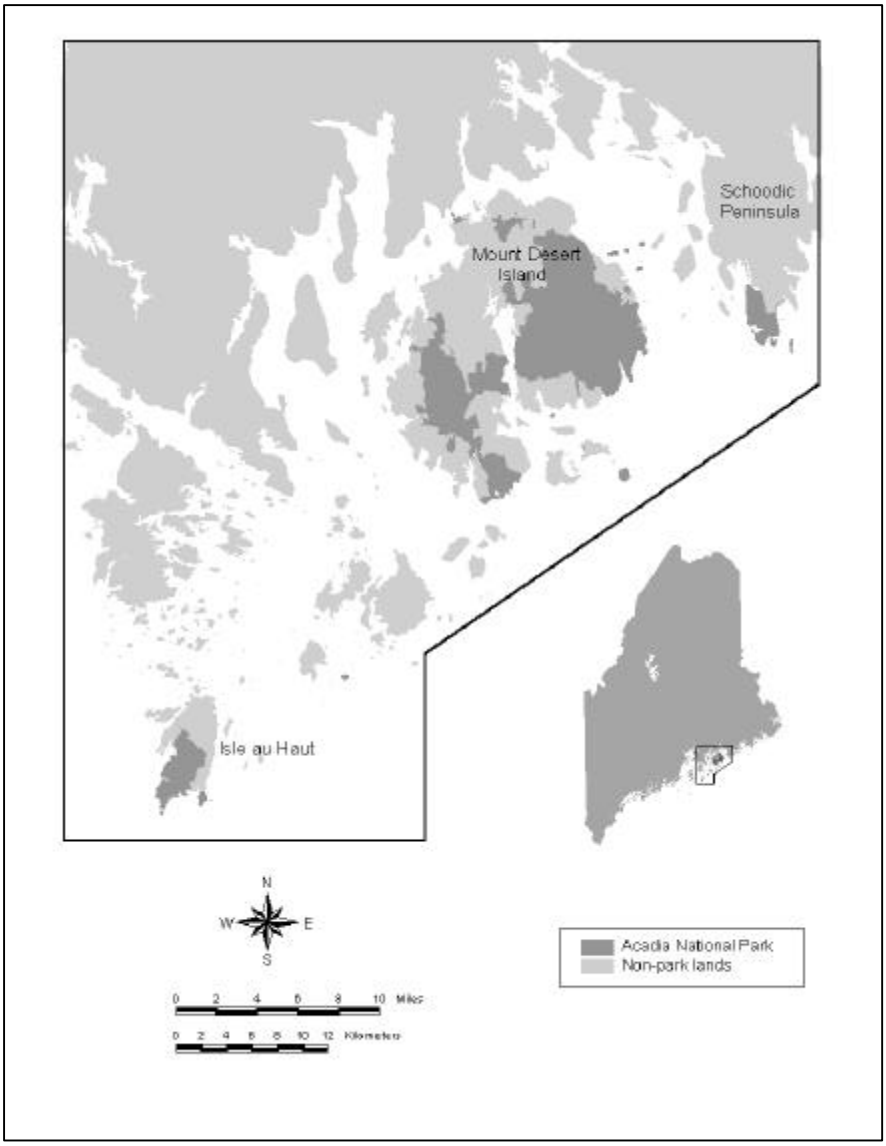
[2] Most hiking trails on MDI are considered historic and part of the historic hiking trail system, except for a few trails built after 1950. Some trails have higher historic value because of their craftsmanship, age, or associations with important people, places or events.

BACKGROUND

PARK SETTING

Acadia National Park is located among the coastal islands of Maine in the northeastern United States (see Map 1). The National Park Service manages about 35,000 acres at Acadia. Most of the park (30,000 acres) is on Mount Desert Island (MDI). About 50% of MDI is under federal ownership. The remainder of the park includes a portion of the Schoodic Peninsula on the mainland to the east of MDI; Isle au Haut, an island 15 miles southwest of MDI; all or part of 14 outlying coastal islands; and several small freshwater islands. In addition, the NPS manages more than 165 conservation easements on coastal islands in the Penobscot and Frenchman Bay areas, comprising more than 11,000 acres.

Map 1: Acadia National Park and Vicinity



PARK MISSION AND PURPOSE

> *The National Park Service at Acadia National Park protects and conserves outstanding scenic, natural, and cultural resources for present and future generatio include a glaciated coastal and island landscape, biological diversity, clean air and water, and a rich cultural heritage. Acadia National Park also offers opportunities for high-quality non-consumptive recreation, education, and scientific research. (NPS 1997)*

The above mission statement for Acadia National Park is based on park legislation and the 1992 GMP. It was formally adopted in the *Strategic Management Plans* (NPS 1997), which also identifies three primary purposes for the park. The first purpose is to protect and conserve the land and water resources, the scenery, the natural and historic objects, the wildlife, and the wild character of the park. The second purpose is to promote and regulate the use of the park for the benefit and enjoyment of the public in such manner and by such means as will leave park resources unimpaired for the enjoyment of future generations. The third purpose is to protect and preserve the scenic, ecological, historical, archeological, and cultural resources of the Acadian archipelago and to limit development of the islands and conserve their natural qualities and traditional resource-based land uses.

PARK SIGNIFICANCE

A rich combination of cultural and natural features and exceptional scientific, educational, and recreational opportunities contribute to the character and significance of Acadia National Park. Acadia was the first national park created east of the Mississippi River and the only congressionally designated national park in New England.

When President Woodrow Wilson set aside the area as a national monument in 1916, he cited the historic interest associated with Samuel de Champlain's 1604 landing on Mount Desert Island. He also noted the great scientific interest of the island's topography, geology, wildlife and vegetation. Acadia National Park has a variety of important resources, including its landscape, air and water quality, biological diversity, cultural heritage, historic properties, collections of artifacts, and outdoor educational and recreational opportunities.

Acadia's coastal and island landscape is unique along the Atlantic shore of the United States. Mountains, lakes, and wooded valleys add character to the land. Somes Sound, the inlet bisecting Mount Desert Island, is the only fjord on the East Coast of the U.S. Park islands provide nesting sites and critical habitat for a great diversity of animals and plants, including species of global, national, state, and local significance.

The cultural heritage of the park is equally important. It includes resources related to Native Americans, French and British settlers, and the wealthy Americans of the late 1800s and early 1900s who established summer colonies, founded the park, and contributed to the creation and development of the conservation movement. Over the years, island residents have left a distinctive cultural polish on the landscape. The surviving historic structures and designed landscapes (such as those of the park's carriage road system and the Park Loop Road) are

important because of their history, durability, and unique character. These structures and landscapes commemorate their designers and builders.

Acadia National Park offers abundant opportunities for outdoor recreation. Visitors are attracted to the park to participate in camping, hiking, horseback and carriage riding, bicycling, sea kayaking, canoeing, and sightseeing.

Acadia also provides excellent opportunities for educating three million annual visitors about the resources of the park. Networks of carefully designed hiking trails, carriage roads, and scenic drives offer access to these resources. People of all ages are attracted to a broad spectrum of interpretive activities, including guided walks, amphitheater presentations, and environmental education programs.

Acadia National Park also has exceptional scientific research value. An extraordinary multidisciplinary database at the park serves as the scientific foundation for ecosystem research and monitoring programs. The park provides a variety of opportunities to conduct research and to monitor resources. There is an extensive scientific bibliography dating back to the late 19th century; an expanding geographic information system; ongoing air, water, wildlife and vegetation monitoring; and a professional staff and infrastructure.

HISTORY OF THE HIKING TRAIL SYSTEM

The following trails history is summarized from the *Draft Cultural Landscape Report, Vol. 1* (NPS 1999a).

The MDI hiking trail system enjoyed today by thousands of visitors is the legacy of three broad but very different eras of trail building. The first era is that of early trails, extending from Native American occupation to the rise of tourism in the 1880s. A few park trails may follow the routes of Native American canoe carry paths between lakes and the ocean. Their exact age is unknown, but they predate the arrival of Europeans in the early 1600s. A few park trails are also historic roads dating from the late 1700's as European settlement of MDI necessitated land links between communities.

When artists and rusticators, along with early surveyors, began to travel to MDI between the 1830's and 1860's, most hiking still consisted of scrambling and bushwacking. Only a very few primitive paths began to develop to accommodate their tramps to areas of interest. A surveyor's path led up the North Ridge of Green (now Cadillac) Mountain by 1855 and another path led to Great Head from Bar Harbor. A summit cairn on Sargent Mountain is mentioned as early as 1855 as well, but there was no designated route up the mountain.

Wealthy visitors began flocking to MDI between 1860 and 1890 because of greater leisure time, better transportation and communications, and an interest in the wilderness. Big hotels and cottages sprang up, especially in Bar Harbor, and many visitors took to the hills for their health and to enjoy the scenery. Well-worn but still primitive footpaths developed to summits and other places, along with guidebooks to help hikers reach their destinations. The framework of today's trail system was established during these years.

A second trails era covers the years 1890-1932, when summer residents formed four village improvement associations (VIAs) (Bar Harbor, Seal Harbor, Northeast Harbor, and Southwest Harbor) and helped create the national park, beginning with its designation as a national monument in 1916. The VIAs mapped, marked, and maintained the trail system that had been established over the previous thirty years. They also constructed many more trails, creating an extensive, carefully crafted, island-wide trail system connecting the villages to natural areas that would soon become the core of the national park.

VIA path committees planned, built, and maintained trails through private funding, using hired local labor. They developed trails to take hikers not only to summits and other areas with broad ocean and mountain vistas, but also along streams, lakes, and through natural rock crevices and gorges. The level of craftsmanship of some of the trails, built of cut granite steps, stone paving, and retaining walls, is remarkable. However, some trails are poorly designed; they make direct ascents up steep slopes with unstable soils or are located in streambeds where ice and water damage are recurring. A variety of styles associated with leaders in the VIA trail movement are still evident on these trails today.

The VIAs retained the responsibility for building and maintaining trails after the formation of the park because federal funding was scant. Through the 1920's, donors continued to fund memorial paths to recognize loved ones or honor early trail builders. The VIAs were undisputedly the primary architects of the trail system we know today - its layout and construction styles, and the character of the experiences it provides.

The third era reflects the transition of trail planning, construction, and maintenance to the National Park Service, beginning with the Civilian Conservation Corps (CCC) between 1933 and 1942, and extending to the present. The federally-sponsored CCC put its own stamp on park trails with several highly crafted stone trails of its own. CCC construction was characterized by a standard NPS style of construction developed by the Service's landscape architects. Whereas the VIAs emphasized connecting the villages with the natural attractions of the island for pedestrians, the CCC worked only on NPS administered lands, developing trails in conjunction with other new facilities such as parking lots, picnic areas, and campgrounds.

Hiking trail use declined throughout the late 1940's and 1950's. During World War II there was little use or maintenance of trails. Post World War II prosperity led to the development and popularity of auto touring and camping. Although park visitation continued to increase during this time, interest in hiking did not. At the same time, VIA trails enthusiasts were aging and less able to play an active role in maintenance. With added road, campground, and picnic area maintenance responsibilities, labor shortages during the war, and low budgets, the NPS was not able to adequately maintain trails. A large fire in 1947 affected the character of many trails, and although work crews funded by the VIAs and John D. Rockefeller, Jr. reopened most trails in the burned areas, few people hiked them because of the ashes and soot. Rapid growth of shrubs quickly obscured trails in the burned area, posing a continuing maintenance challenge. In 1956, the park formally evaluated the system with the intent to reduce the number of trails because of low use and low budgets. Trails leading onto private land were closed, as were trails considered redundant, trails difficult to maintain, and trails with low use, such as those west of Eagle Lake . The abandonment of many trails made formal what had been developing for some time—two

systems of trails: one system officially mapped, marked, and maintained and another abandoned. This second abandoned system is sometimes confusing to hikers, and is used mostly by local residents. Unknown persons informally maintain some of these abandoned trails[3] today.

The National Park Service Mission 66 program celebrated the 50th anniversary of the NPS, and added a few trails to Acadia. It also rehabilitated some trails but it was not a major effort. In the late 1960's and 1970's a resurgent interest in hiking and outdoor recreation coupled with limited budgets and staff challenged park trail crews to keep up with maintenance. In fact, both literally and figuratively, ground was being lost from then until the present day. Without a major funding initiative, such as the Acadia Trails Forever partnership, erosion and trail degradation would surely continue. Through the 1990's, the trail maintenance program in the park has increased from 1 to 4 permanent staff. During this same time, the park stepped up its use of volunteers and expanded cooperative trail rehabilitation and maintenance programs with Friends of Acadia and the Appalachian Mountain Club.

SIGNIFICANCE OF THE HIKING TRAIL SYSTEM

The nomination of the hiking trail system on MDI to the National Register states that the system is a cultural resource of national importance (NPS 1999d). The nomination recognizes trail design and craftsmanship and expressly identifies the use of cut stone to create an incredible array of beautifully built steps, retaining walls, rock paving, and culverts that define the character of these trails. Remarkably, most of this work remains in good condition more than 70 years later. The National Register nomination also recognizes that the trail system is culturally significant because of its community origins with the village improvement associations. The VIAs were part of a civic movement on MDI that eventually led to land protection and the creation of the national park. Cottage owners and local businesses were invested financially and emotionally in the tourist-attracting scenery of Mount Desert Island. At the turn of the century, threats of development and logging spurred the formation of the Hancock County Trustees of Reservations and the VIAs to preserve the wilderness values of the island. The VIAs played a small part in the nationwide conservation movement of the late 1800's, and had a more prominent role in the creation of Acadia National Park.

Acadia's trail system is also significant because it is user-friendly. The park is small and trail mileage is high, making large portions of the park available to hikers of modest physical ability. Though many trails are rugged and steep, they are short. The trail system also offers many opportunities for hikers to make loop hikes. In the summer, the Island Explorer bus system now offers point-to-point hiking options.

Few natural areas of similar size offer as many trails with such a diversity of experiences as Acadia. Spectacular views of a landscape of mountains, islands, lakes, and the sea are common and often easily reached. Quiet, seldom-trodden woodland paths contrast with popular, strenuous, precipitous, cliffside trails. Iron rungs and ladders on cliffside trails offer thrills, risks, and challenges like those of technical rock climbing. Many trails also take hikers to or through more intimate landscapes of small, rocky gorges, pocket wetlands, abandoned beaver ponds, and

[3] Unfamiliar terms used in this document are defined when first used and included in a glossary on page 78.

a variety of forests and communities. Highly crafted stonework adds a unique cultural layer to the diversity of hiking experiences in Acadia

CURRENT USE OF THE HIKING TRAIL SYSTEM

Use of the hiking trail system follows the seasonal and daily use patterns exhibited throughout the park. During summer months, trails receive high use concentrated in the middle of the day. The most popular trails are those near water or ascending mountains. In the summer, these trails may have hundreds of hikers per day. Woodland paths are used much less. Even in midsummer at midday, few hikers are seen on these trails.

Some local trail enthusiasts and a very few visitors explore abandoned trails; use of these abandoned trails is very low. Abandoned trails offer a high degree of solitude even in the summer months. Most of those who use abandoned trails do so to escape from the summer crowds. Even fewer hikers travel off trail in the park.

To a limited extent, the NPS has monitored hiking trail use. Hiker counts over the past few years on several summits show that Gorham Mountain and Beech Mountain were very popular. Pemetic and Sargent Mountains were less used (Jacobi 1999). Ten censuses on Sargent Mountain for six hours each during the summer of 1998 showed that between 40 and 80 hikers reached the summit each day between 10:00 a.m. and 4:00 p.m. (Jacobi 1999).

In August of 1999, the park conducted the first comprehensive hiking trail census (Chase and Jacobi 2000). This effort was repeated in early August 2000. Based on these censuses, on a typical July or August day, there may be as many as 5,000 hikers in the park (Jacobi in preparation).

The NPS has long used the hiking trail system to provide programs for the visiting public. However, low budgets have reduced the number of park programs in recent years. In 2000, the park presented over 300 interpretive hikes on trails, serving approximately 7,000 visitors. The NPS does not publish any hiking guidebooks or maps, although several privately produced guidebooks and maps are available.

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Map 2. Current Mount Desert Island Hiking Trail System, East Side

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Map 3. Current Mount Desert Island Hiking Trail System, West Side

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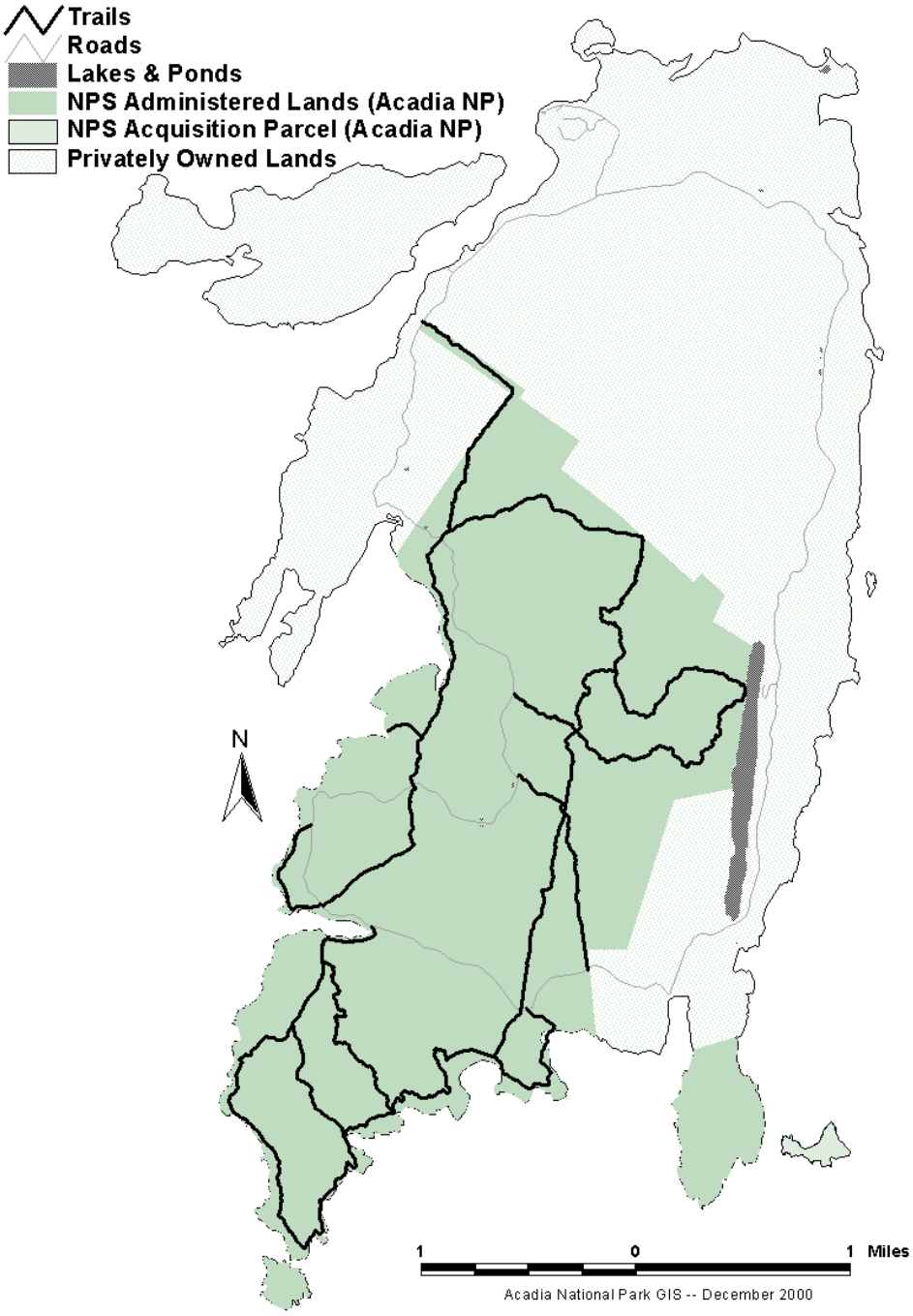
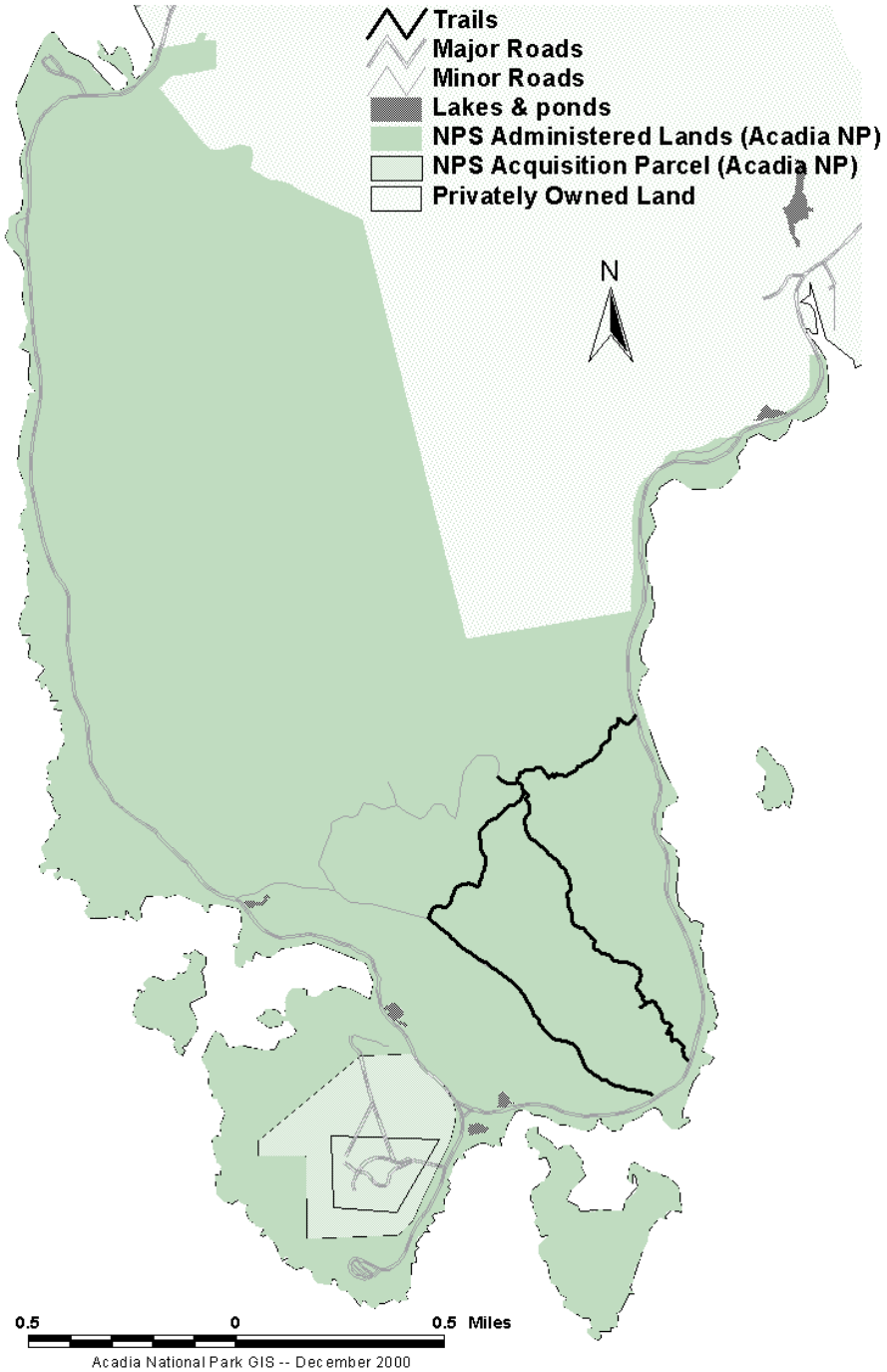
Map 4. Current Isle au Haut Hiking Trail System



Map 5. Current Schoodic Hiking Trail System



GOALS FOR THE HIKING TRAIL SYSTEM

Through internal discussions and public input from a series of workshops, and with the help of recent historical research, the NPS has drafted the following goals for managing the hiking trail system in Acadia National Park.

PROTECT PARK RESOURCES

Natural Resources

Manage the effects of trail development and use on natural resources.

- Minimize soil erosion, vegetation loss and wildlife disturbance.
- Preserve large natural areas without maintained trails as undisturbed wildlife habitat.
- Protect threatened/endangered species, species of concern, and sensitive habitats.
- Protect water quality, including public water supplies.

Cultural Resources

Preserve the elements and features that contribute to the national significance of the trail system as a cultural resource, and protect other cultural resources and values, including those associated with Native Americans.

- Maintain historic trail routes and names where appropriate.
- Maintain constructed features such as steps, bridges, walls, ladders, rungs, drainage, tread, marking, and memorial plaques.
- Protect scenic features including rock formations, vegetation, water bodies, and views.
- Protect associated buildings, structures, and developed areas.
- Protect associated archeological resources.

PROVIDE HIGH QUALITY VISITOR EXPERIENCES

- Provide safe, high quality trail experiences that access a variety of natural and cultural resources, and vary in difficulty, accessibility, length, risk, and use levels.
- Preserve opportunities for low-impact travel off trail, and opportunities to discover and use abandoned trails.
- Provide pedestrian access to park facilities and destinations; provide loops in heavily used areas; and provide connectors to local communities, bus routes, and other trails, encouraging people to enjoy the park without a car.

EDUCATE THE PUBLIC

Offer opportunities to interpret the natural, cultural and scenic resources of the park and to educate visitors about low impact use of the park.

MAKE THE TRAIL SYSTEM SUSTAINABLE

Manage and maintain the trail system in a sustainable manner with respect to the size of the system, the type and level of maintenance, the source and amount of materials used, and the number of hikers accommodated. Sustainability extends to materials obtained from outside the park. Management and maintenance should also be flexible enough to meet future needs.

DESCRIPTION OF THE ISSUES

Issues arise when trails and trail use affect natural or cultural resources, visitor experiences, communities and neighbors, or park operations. We have identified the following important issues that will be addressed in the Description of the Alternatives and Environmental Consequences sections of this draft plan.

ISSUES RELATED TO PROTECTING NATURAL AND CULTURAL RESOURCES

Size and Configuration of the Trail System

This issue is closely related to the preservation of large undeveloped areas, wildlife disturbance, visitor experiences, sustainability, and the level of trail maintenance. The trail system on MDI is now about 118 miles in length, but was once 250 miles.

- What is an appropriate size for the trail system?
- Which existing trails or sections, if any, should be rerouted?
- Which abandoned trails, if any, should be restored?
- How many new trails, if any, should be built?
- Which trails, if any, should be removed from the system?

Large Undeveloped Areas

The landscape of MDI and Acadia National Park is divided by many roads and trails, leaving few large undeveloped areas. Large undeveloped areas are beneficial for wildlife, especially larger mammals such as moose (*Alces alces*), black bear (*Ursus americanus*), and bobcat (*Lynx rufus*) and other animals sensitive to human disturbance. These areas also provide the most remote experiences found on Mount Desert Island to the few visitors who explore them. Many of the remaining large undeveloped areas are or were traversed by trails no longer maintained. For example, no trails are currently maintained north of Route 233, and few are maintained north of Sargent Mountain and west of Eagle Lake. On the western side of MDI, there are few maintained trails north of the Western Mountains.

- Should abandoned trails be reopened or new trails built in large, undeveloped natural areas?
- What are the cumulative effects on park flora and fauna when more trails and visitors are added to any part of the park landscape?
- Should trails be removed to create more large, undeveloped habitat areas?

Source of Construction Materials

Stone, gravel, soil, and wood are required to build and maintain trails. These materials are usually available near each trail work site, and historically were extracted from nearby areas. Continuing this tradition may be appropriate if the preservation of a trail's cultural integrity is the primary goal, as historically accurate material such as pink granite may not be available from outside the park or may be prohibitively expensive. Acquiring materials from within the park near the trail may reduce maintenance time and costs. However, obtaining these materials from inside the park depletes natural resources that are non-renewable.

- Rehabilitating park trails is expected to require a large amount of materials. Where should they come from?

- Increased hiker traffic on trails will require the NPS to stabilize some sections of trails, especially in steep areas prone to erosion. This may involve building stone steps. Sources of Cadillac Mountain granite, the type most commonly used historically, are limited. Where will stone for these areas come from? What type of stone is appropriate to maintain the historic character of each trail?
- What can be done to prevent the introduction of weed seeds in gravel and soils imported to the park for use on trails?

Beaver Activity

Beavers are native to coastal Maine, but were eliminated by trapping in the 1800s. They were reintroduced on MDI in the early 1920's. By then, many more trails and roads had been built on MDI; establishment of beavers in streams and wetlands adjacent to trails has, at times, resulted in flooded trails, minor structural damage, and added maintenance. Today, protecting beavers sometimes conflicts with visitor use and protecting historic trails.

- Should beavers be managed in and adjacent to park trails? If so, how?

Vegetation Management

Vegetation management issues include determining how frequently, how widely, and what time of year to cut brush along trails and vistas. Cutting brush to create a wide trail corridor reduces the frequency of cyclic maintenance but may contribute to the widening of trail tread and loss of soil and ground cover vegetation. This has been the practice in the recent past. Cutting brush to create a wide trail corridor also changes the experiences of those using the trails, making the trail seem less primitive or remote. Cutting brush in the spring or summer may adversely affect breeding wildlife, especially nesting birds. The time of year of brush is cut has not been a consideration in trail maintenance. During the CCC era, laborers cleared large expanses of underbrush to create long views into the forest adjacent to trails. This also provided some degree of fire protection. The VIAs cleared brush according to standards similar to those of today. Research on historic methods of trail maintenance has provided only limited information about vista clearing.

- How wide, how often, and when should brush be cut along trails?
- Should vistas from trails be cleared, and if so, where and when?

Threatened and Rare Species, Species of Concern, and Sensitive Communities

Many plant species within the park are considered rare within the state of Maine, although none are so rare as to merit federal protection. Most of these rare plants are found in three ecological communities that are considered sensitive to human disturbance: mountain summits, seashores and islands, and wetlands. Many park trails cross major summits and several extend along the seashore; fewer are located in or near wetlands.

- What are the effects of trails and hikers on these important species and communities?
- What environmental effects will be caused by new trail development in these sensitive areas?

As new species of plants or animals are added to federal and state lists for protection, the park must reconsider the effects of trails and trail use on these species. A similar reconsideration applies to ecological communities. Ecological research continues to add to our understanding of communities, and in the future, additional communities may be identified as being sensitive to human disturbance.

Species listed for protection by federal and state governments are given special consideration.

- When trails impact species that are not federally or state protected, but are uncommon in the park, which takes priority—protecting uncommon plants and animals, protecting historic resources, or providing for visitor use?

Disturbance to Wildlife

Human intrusions into natural areas can negatively affect wildlife. Wildlife responses may vary greatly between species and sometimes between individuals of the same species. Wildlife responses also vary depending on the time of year, time of day, and the type of human intrusion. Wildlife often use the edges between different habitats such as field and forest or water and land. Visitors also are attracted to habitat edges, especially along ocean, lakes, and streams. Many currently maintained park trails and social trails (to be discussed shortly) are located along or near these shorelines.

- What are the effects on wildlife, including the cumulative effects, of maintained trails and social trails throughout the park?
- What would be the effect of developing more trails along shorelines?

Water Quality

Several trails run adjacent to wetlands, seashores, lakeshores, public water supplies, and streams.

- Do existing trails or will proposed new trails cause sediment to be deposited in water bodies?
- Is human waste associated with trail use causing resource degradation, especially in public water supplies?

Soil Erosion

Several trails make direct ascents up steep slopes, causing severe erosion and creating rehabilitation and maintenance challenges.

- Where trails are severely eroded, can techniques used in the past to stabilize soils and provide long-term erosion control work? Are more modern techniques needed, or should these trails be rerouted?
- Does clearing brush along trails that traverse shorelines increase shoreline erosion?

Wetlands

When trails traverse small wetlands, these sections typically require increased maintenance and special structures. Most trails avoid major wetlands. However, the Jesup Path and the Hemlock Road both traverse Great Meadow and may interfere with normal water flows and wetland functions.

- What effects do these trails have on wetlands? If there are negative effects, can these trails be rehabilitated to restore water flows and wetland functioning to a more natural regime? At what environmental, cultural, or monetary cost? If not, should the trails be removed?

Unauthorized Abandoned Trails Maintenance and Unauthorized New Trail Development

Over the past fifty or more years a few trail enthusiasts have provided a low level of unauthorized maintenance such as brush cutting, flagging, and cairn building to keep abandoned trails usable. This trail maintenance is illegal; it occurs without any formal approval or oversight from the park. Additionally, it may not adequately protect natural and cultural resource values. Multiple routes develop when shrubs overgrow a section of abandoned trail and make it hard to

follow, or when new cairns are built. Multiple routes also contribute to soil erosion and vegetation damage. On rare occasions, a substantial amount of trail clearing has taken place, with numerous trees cut. The cultural integrity of a route is altered when plastic flagging is used to mark a trail or when the wrong style of cairn is constructed. The route of some sections of these trails changes over time and no longer follows the historic route. Abandoned trail connections to the maintained system may occasionally confuse hikers because, at times, these connections are obvious and difficult to disguise, yet are not on current hiking maps. New trail development on park lands, usually by park neighbors for their use, also occurs without NPS approval or management. Use of these newly built, unauthorized trails causes damage to soils and vegetation, and possibly confuses hikers.

- How should the NPS discourage unauthorized abandoned trail maintenance and unauthorized new trail development?

Social Trails

While the unauthorized maintenance and construction of trails is intentional, informal "social" trails are created without express intent. They develop when many park visitors continuously use the same route to access features. Social trails exist in many locations throughout the park, for example, near Ike's Point on Echo Lake, on Little Moose Island, and on the east shore of Long Pond. When not managed or maintained, these trails can develop severe erosion, intrude into resource-sensitive areas, and pose other management challenges.

- How should the park manage or maintain these trails?

Preserving Historic Character

Preserving historic character has not always been a high priority in trail maintenance at Acadia. The historic character of the trail system is at risk of being lost because of the competing interests of protecting natural resources, increased hiking use, lack of appropriately skilled labor, and the lack of funds to rehabilitate trails to historic standards. "Character-defining features" are the exemplary characteristics of an historic structure, object, or landscape that contribute to its historic character and aid in the understanding of its cultural value. On Acadia trails, character-defining features include memorial plaques, trail markings, and remarkable iron, wood, and stone craftsmanship seen on trails constructed during the VIA and the CCC eras (for example, the Perpendicular Trail). The trail route (Giant Slide), geological features (Bubble Rock), topographical features (Cadillac South Ridge), special habitat near the trail (Jesup Path-Great Meadow), or the views from the trail (Acadia Mountain) may also be character-defining features.

- Can all trails be rehabilitated and maintained to the highest standards of historic preservation?
- Is a high historic standard appropriate for accommodating use levels that are much higher than anticipated at the time of construction?
- If not all trails, which trails should be rehabilitated and maintained to the highest historic standard?
- Should outstanding stone features on abandoned trails be rehabilitated and maintained, or at least stabilized, to protect them from further degradation?
- When rehabilitation and maintenance to historic standards conflicts with preserving resource values, (such as when vistas are cleared or on-site materials are used for maintenance), how should trails be treated?

Level of Rehabilitation

Trail rehabilitation preserves the historic character of the trail, while making allowances for new or increased use. The level of rehabilitation required for minimal resource preservation varies greatly from trail to trail because of differing environmental conditions, varying degrees of cultural significance, and varying amounts of use. Beyond this minimum level, added rehabilitation and subsequent maintenance provides long-term natural and cultural resource protection, and enhances visitor safety and experiences. Even with increased staffing and funding, complete rehabilitation of all trails may not be possible.

- To what level should trails be rehabilitated?
- What will be the social and environmental costs of trail rehabilitation?
- Which trails, if any, should receive the most attention and which should get no more than the minimum?
- What level of maintenance will be required to protect natural and cultural resources?
- Should natural and cultural resource damage be mitigated on abandoned trails?

Trail Names

Historic trail names are an important character-defining feature of many trails. However, many of these historic trail names are no longer used; the park currently uses a mix of historic and new trail names. While most park and other publications consistently use the same names for the same trail, the existence of historic trail names may be a source of some confusion to hikers. For example the East Face Dorr Trail, formerly called the Emery Path, is still often referred to as such. The "Emery Path" is carved into a step stone at the base of the trail while the East Face Dorr Trail marks the nearby cedar post sign.

- Should any or all historic names be reinstated officially?
- What are the implications for publications, trail signs, the effects on visitors, etc., of reverting to historic names.?
- Should the NPS encourage private guidebook and map producers to use official names?

Trail Signs

Acadia's hiking trails have four sign styles:

1. Trailheads, some summits, and easily accessible intersections are marked with cedar logs set vertically in the ground or in rock cairns. These trailhead signs indicate the trail name and major destinations. These signs were erected beginning in the 1980s in response to rampant vandalism and theft of the smaller, more traditional routed signs mounted on 4" by 4" posts.
2. Most trail intersections have the more traditional routed signs, and usually indicate destinations, not trail names. A few warning signs for trail hazards are also routed and mounted in this style.
3. Trailhead exhibits of embedded fiberglass (2 panels, 18" by 30") are located a short distance down the trail from the cedar log trailhead signs. They provide the trail name, and map, resource protection messages, and safety information.
4. Finally, black and yellow metal warning signs are located on the Precipice Trail.

The wooden trail signs (cedar logs and intersection signs) in Acadia represent traditional design elements but are not identical to signs used in the past. Historically, trail names were seldom used on signs except at trailheads. This may cause some confusion for hikers in the interior of the system.

- Do signs provide adequate information for hikers?
- Are they appropriate in style?

Trail Markings

Most trails are marked with blazes: 2" by 6" rectangles of blue paint to guide hikers. A few metal tags on trees (usually diamond or bird-shaped) or orange blazes remain from earlier years. However, not all woodland trails have blazes. Cairns mark some woodland trails, especially those with open ledges. Cairns are structures made of rocks to mark trails, and are usually in areas where there are no trees. The traditional stone cairn (cone shaped) is used most often. However, there are two other historic styles still seen on trails. One is the pagoda style, developed by early trail builder Waldron Bates, and the other is simply 2-3 rocks stacked one on top of another.

Visitors often destroy park-built cairns or build their own. This is a major problem on sub-alpine trails because soil erosion and plant losses increase when visitors cannot follow trails or when they remove rocks from thin mountain soils. Excessive cairns degrade the mountain landscape and affect the hiking experience. Extra cairns also confuse hikers, leading them off the trail, creating a potential safety problem. Because of visitors tampering with cairns, and the subsequent inability of park trail crews to maintain them, crews shifted to the use of blazes on sub-alpine trails. To maintain the cultural integrity of trails, use of the appropriate style of cairn is clearly important.

- How important is the character-defining feature of historic cairn style when weighed against the practical demands and costs of trail maintenance?
- Should the use of blue blazes be expanded to entirely replace cairns?
- Are painted blazes appropriate on sub-alpine summit trails?
- Will recent visitor education about protecting cairns be effective and reduce visitor construction of additional cairns?
- Are there other techniques that could be used effectively to protect cairns?

Keeping Hikers on Trails

Wandering off trails, even briefly, can damage soils and vegetation, especially when it occurs repeatedly in the same place. Summits and ridges are sensitive to this damage. Keeping hikers on Acadia's trails is difficult because of worn blazes, frequent twists and turns on trails, visitor tampering with cairns, and the accessible terrain of smooth granite summits and ridges.

Scree walls are lines of rock that define one or both sides of the trail tread. Their intent is to confine hikers to the trail tread, reducing resource damage such as trail braiding and widening. Scree walls are used on alpine summits and ridges in the White Mountain National Forest, Baxter State Park, and in other areas; they have not been used historically at Acadia. They protect resources but change the appearance of a trail.

- Are scree walls an appropriate technique for keeping visitors on trails in sensitive areas?
- Should scree walls be used only where they will have minimal effect on trail aesthetics?
- Would using flat-sided rocks to form the trail tread (rock paving) work as well as scree walls? What would be the aesthetic and cultural resource effects of using rock paving?

- In very high visitor use areas such as the summit of Cadillac Mountain, would more intrusive methods such as fencing be appropriate to keep visitors on trails?
- Should the NPS support additional staff on trails and summits to supplement current education efforts? Are other education programs or additional signs needed?

ISSUES RELATED TO PROVIDING HIGH QUALITY VISITOR EXPERIENCES

Diversity of Visitor Experiences

One goal of the trail system is to offer a diversity of hiker experiences based on difficulty, use levels, risk, length, habitats traversed, views, opportunities for solitude, and trail construction.

- Are there important visitor experiences that are being lost or are missing?
- Does the trail system provide access to most habitats? Does the trail system offer a diversity of views?
- Do heavily used trails have too many people? Are trails where visitors seek solitude becoming "too crowded?"
- Are challenge and risk on some trails being diminished by increased maintenance to protect resources?
- How important are abandoned trails and off-trail hiking to visitor experiences and solitude?
- What is the best balance of opportunities for visitors to experience maintained trails, abandoned trails, and off-trail exploration?

Providing Trails For Hikers with Special Needs

No park trails are designated or built for disabled persons and none meet the Americans with Disabilities Act (ADA) requirements (42USC 12101).

- Are all visitors being served by the hiking trail system? How can visitor experiences be improved?
- What trails, if any, could or should be rehabilitated or newly constructed to provide an opportunity for persons with disabilities to experience Acadia's trails?

Public Transportation

The Island Explorer bus system seems to offer a great opportunity to enhance Acadia hiking experiences.

- Do the opportunities for one-way (as opposed to loop) hikes reduce the need to develop more park trails?
- Will the public transportation system increase use on trails that now receive little use and offer opportunities for solitude?
- Will the public transportation system reduce automobile congestion at trailheads?

Connector Trails

Many trails on park and private land connecting local communities with the park have been lost from the trail system on MDI. Reestablishing some connector trails is a goal of the park's *General Management Plan*. Such connections would reestablish some of the integrity of the trail system, enhance visitor experiences and community life, and offer opportunities for visitors and neighbors to use the Island Explorer bus system. On the other hand, connector trails do impact resources and may contribute to a loss of solitude in what were previously low-use areas.

- Should any connections not be built because of their anticipated effects?

- Where do historic connections on private lands exist and how can they be preserved?
- What are the best new opportunities for trail connections with local communities?

Also, few hiking opportunities are available near either of the park's two major campgrounds, Blackwoods and Seawall. Several historic trails that are no longer marked are located in the vicinity of Blackwoods Campground. The *General Management Plan* recommends that additional trail connections from the campgrounds to the trail system be evaluated. Additional connections might enhance visitor experiences and possibly reduce vehicle traffic in the park, as campers now have to drive or take the bus to access most trails.

- What are the best options for connecting park campgrounds to the hiking trail system?

Dogs on Trails

Acadia National Park allows leashed dogs on all trails except trails with ladders. In the park, dogs are prohibited from public beaches, seabird nesting islands, and some rock climbing areas. Walking with dogs on backcountry trails is a privilege allowed in relatively few national parks. Many trails in Acadia are rugged and steep, and it can be difficult to walk them with a dog on a leash. Conflicts between visitors with dogs and other visitors are issues in many local, state, and national parks. This issue was raised in most public trails planning workshops. Visitors often complain to park staff about unleashed dogs. Many visitors hiking with dogs routinely ignore the park leash law. The park has insufficient staff to strictly enforce this regulation. In a recent visitor survey, 32% of visitors encountered dogs off leash while visiting the park (Littlejohn 1999). Fifteen percent of those encountering an unleashed dog said dogs interfered with their visit. Dogs disturb wildlife: directly, such as when unleashed dogs chase deer; and indirectly, such as when dogs leave scent along trails, indicating to some species that a predator is near.

- Should dogs be permitted on hiking trails? Or on fewer hiking trails? Or banned from additional trails that are difficult but have no ladders?
- Should dogs be allowed on hiking trails only at certain times of year?
- How can the ethics of park visitors with dogs be changed so they leash their dogs while in the park?

ISSUES RELATED TO PUBLIC EDUCATION

Helping Visitors Choose Appropriate Trails to Hike

Acadia trails are deceptive. Many are short in length, but steep and difficult. Visitors may choose trails for which they are unprepared, or trails that do not match their abilities, resulting in an unsatisfactory experience or resource damage when they avoid trail obstacles.

- What are the most appropriate and effective methods to prepare visitors for hiking Acadia's trails?

Maps and Information

Hikers occasionally become lost. Maps of the hiking trails on NPS-administered lands are currently not published by the National Park Service, although maps developed by others are available for sale in park facilities. Trail names on commercially available maps, even those sold in the park, are not always consistent with trail names used by the park.

- Without compromising the historic features of the hiking trails, what can the National Park Service do to better prevent hikers from getting lost?

- Would having an 'official' NPS hiking map allow the NPS to better manage information about hiking in the park?
- What other methods can be used to provide accurate, up-to-date information about hiking on Acadia's trails?

Educating Visitors about History of the Trail System

Currently, there are few opportunities for visitors to learn about the history and significance of Acadia's trail system.

- How can the NPS promote better understanding of the history and significance of the trail system?

Leave No Trace Education

Many visitors are unfamiliar with trail behaviors that protect park resources and respect other visitors. Leave No Trace is a national education program adopted by federal land management agencies to encourage visitors to become stewards of federal lands by changing the way they use these lands. Acadia National Park began implementing Leave No Trace education in 1998.

- How can the park more effectively educate visitors to change their behavior and in a way that protects park resources and improves the experiences of visitors?

ISSUES RELATED TO TRAIL SYSTEM SUSTAINABILITY

Many of the preceding issues are related to the sustainability of the park's trail system. These include the appropriate level of rehabilitation, size and configuration of the trail system, types of materials to be used in rehabilitation, techniques and tools used for maintaining the trail system, the most efficient method of trail rehabilitation and management, and visitor education.

ISSUES CONSIDERED BUT DISCARDED FROM DETAILED ANALYSIS

Carrying Capacity and Trailhead Parking

These two topics are closely related to one another and to the Draft Plan/EA goal of sustainability for the physical condition of and the visitor experiences on the park trail system. Addressing these issues in a comprehensive manner is beyond the scope of this Draft Plan/EA. However, as described in the alternatives section of this document, the park will continue to monitor trail conditions, visitor experiences, and parking. It is the aim of the NPS to resolve carrying capacity and parking issues in a comprehensive manner throughout Acadia National Park.

DESCRIPTION OF THE ALTERNATIVES

Based on the issues, applicable laws, and NPS policies, four alternatives were developed for this Draft Plan/EA. Alternative 1 is a no action alternative, required by the National Environmental Policy Act. It is not a viable alternative, but describes NPS trail management at Acadia National Park as of 1999, before the Acadia Trails Forever program. Alternative 1 is included as a baseline to compare the effects of other alternatives on the natural and human environment.

Alternatives 2, 3, and 4 describe different versions of a major hiking trails rehabilitation program.

This section first describes the actions common to alternatives 2, 3, and 4. These common actions are followed by a detailed description of each alternative, highlighting actions that vary among them. All alternatives are then summarized in a table for easy comparison (see page 59).

The effects of all proposed actions are described in the Environmental Effects section of this document.

ACTIONS COMMON TO ALTERNATIVES 2, 3, and 4

Actions Related to Protecting Natural and Cultural Resources

Cultural Significance of the Trail System. All decisions related to what trails would be rehabilitated, preserved, and maintained would consider the cultural significance of the individual trail, the effects on the trail system as a whole, and the contributions of the trail to the original intentions of the system. These original intentions were to provide an opportunity for recreation and to connect local villages with features of interest that are now within Acadia National Park.

Cultural Resources. All trail rehabilitation and maintenance would be in compliance with the National Historic Preservation Act. Before any ground-disturbing rehabilitation or maintenance in previously undisturbed areas, archeologists will be consulted to assure protection of cultural resources and adherence with the National Historic Preservation Act. In addition, whenever trail routes or character-defining features are modified, NPS staff will document conditions before and after work.

Trail Connections on Private Lands. NPS staff will work cooperatively with private landowners and local organizations to protect trails and right-of-ways for trails on private lands that connect to park trails and features. When trail right-of-ways on private lands are rescinded, NPS connecting trails might be closed.

Beaver Management. When beavers impound water and threaten trails, the NPS would manage water levels by installing fences around culverts and pipes through dams. If those efforts were not successful, further management actions such as rerouting the trail and adding structures such as boardwalks would be considered on a case-by-case basis. Beavers would be moved to other areas or, if open habitat is not available, would be euthanized, but only when

other attempts have failed or are impractical. Before developing new trails or opening abandoned trails, the NPS would consider potential effects on beaver populations.

Rare Species. Preventing disturbance to rare species would be a major consideration in trail rehabilitation, maintenance, and use. The park botanist and wildlife management specialist would survey trails before rehabilitation or maintenance and recommend actions to prevent adverse effects on rare species. If rare species are threatened by trail rehabilitation, maintenance, or use, management actions would include postponing or eliminating work, educating hikers, rerouting trails, or closing trails to public use.

Water Quality. When the route is an important character-defining feature contributing to a trail's cultural resource significance, it would be retained as long as water quality could be preserved through appropriate rehabilitation and maintenance techniques. If water quality could not be preserved, trail closures and reroutes would be considered.

Soil Erosion. Trail rehabilitation and maintenance would comply with the Maine Natural Resource Protection Act, the Clean Water Act, and NPS guidelines protecting water quality and wetlands. Rehabilitation and maintenance on all trails would be adequate to prevent the erosion of surface materials and stone features such as steps, walls, culverts, and water bars.

Abandoned Trails. Trails not deemed suitable for rehabilitation and maintenance through this planning process would be obscured by placing brush or plantings at the beginning of the trail and wherever the trail intersects with other trails. Signs indicating the presence of the trail would be removed, as would references to the trail in wayside exhibits and NPS publications. Stone steps, cairns, and other constructed features on these abandoned trails would not be removed from the landscape.

Social Trails. All social trails would be inventoried and regularly inspected for resource damage. Management/treatment strategies would be developed as the need arose, and might include closing the trail, rerouting the trail to minimize effects on resources, hardening the trail surface, adding features to keep users on one designated trail, or other measures as appropriate. To prevent use and minimize resource damage, these trails would not be included on park maps.

Unauthorized Trail Development and Maintenance. Unauthorized construction of new trails and maintenance of abandoned trails would be actively discouraged. Unauthorized trails would be closed and resource damage would be mitigated. Unauthorized trail builders or maintainers would be subject to criminal charges.

Partnerships for Trail Development and Maintenance. The NPS would pursue formal agreements with interested neighboring groups and individuals to assure the continued care of trails inside the park and the protection of trails on private lands outside the park.

Actions Related to Providing High Quality Visitor Experiences

Trails Meeting the Americans with Disabilities Act (ADA) Standards. About two miles of trail would be rehabilitated to meet ADA standards. The NPS would provide these trails in a

variety of habitats, such as shorelines, mountain summits, and forests. Trails under consideration include: Cadillac Summit Trail, Jordan Pond Nature Trail, Ocean Path, and Jesup Trail.

Viewsheds. Active protection of viewsheds would be sought. Park developments that can be seen from trails would be camouflaged whenever possible. The NPS would actively seek protection of views extending beyond park boundaries by encouraging voluntary actions by private landowners.

Hiking on Fire Roads. Fire roads would be managed in a way that allows continued hiking use.

Visitor Experience Monitoring. Hikers would be surveyed periodically to determine if park trails provide high quality visitor experiences, and to determine if trails on Isle au Haut, Schoodic and the western side of MDI provide opportunities for solitude.

Safety. All trails would be maintained to ensure public safety while retaining an appropriate level of risk.

Actions Related to Public Education

Public Education. Education to reduce hiking-related impacts, to enhance understanding of the history and significance of the trail system, and to orient visitors to Acadia's trails would be increased in all alternatives.

Leave No Trace. The FOA/Acadia National Park Ridgerunners program would be supported by part of the Acadia Trails Forever program and would continue Leave No Trace education, minor trail maintenance, and resource protection. In addition, to promote visitor safety, resource protection, and educate hikers, the NPS would increase the number of rangers on park trails. The NPS would offer interpretive programs about the history of the park's trail system. Leave No Trace outreach education for interested groups would continue.

Maps, Signs, and Names. The NPS would produce an official Acadia National Park hiking map, and would continue to work with publishers of private maps and literature related to hiking in Acadia to provide accurate information. Informational exhibits would be placed at other high-use trailheads. New signs would include resource protection signs, signs interpreting historic trails, and posts with regulatory symbols (no camping, etc.) at selected trailheads. An official trail names list would be developed to reduce confusion. New trails would be named based on natural or historic features associated with the trail.

Public Transportation. To reduce parking congestion, hikers would be encouraged to use public transportation.

Actions Related to Trail System Sustainability

Many of the above actions are related to the Draft Plan/EA's goal of sustainability. This goal referred to the size of the system, the type and level of maintenance, source and amount of materials used, and the number of hikers accommodated. Although carrying capacity and

parking are not addressed in this Draft Plan/EA, the park would monitor trail conditions, visitor experiences, and parking.

Staff/Training. Additional NPS staff would be hired. Rehabilitation would require significant increases in trail maintenance staff. Park resource management and protection staff would be needed to monitor and manage trail use, guide revegetation of disturbed areas, and additional administrative staff would be needed to support trail rehabilitation and maintenance activities. Additional interpreters would be needed to review trails-related publications, provide interpretive hikes, and develop education materials related to Leave No Trace. Trail crew employees would be trained in order to enhance their knowledge and skills in methods of historic trail rehabilitation and resource protection.

Infrastructure. Workspace would be enhanced to increase trail maintenance efficiency and accommodate increased staff levels related to trail management and education. Additional vehicles and tools would be purchased to support trail rehabilitation and maintenance.

ALTERNATIVE 1: NO ACTION

This alternative describes trail management and use as of 1999, prior to the Acadia Trails Forever program. The NPS does not consider Alternative 1 a viable alternative. It is included as a baseline to compare the effects of other alternatives on the natural and human environment. Under this alternative, trail rehabilitation would occur infrequently, and cyclic maintenance would not meet the goals of protecting natural and cultural resources and providing quality visitor experiences.

Actions Related to Protecting Natural and Cultural Resources

There would be approximately 120 miles of maintained trails in the park on Mount Desert Island, 19 miles on Isle au Haut, and three miles on the Schoodic Peninsula (see Table 1). No park trails would be developed on other islands, although social trails would continue to appear there, especially along shorelines and to special features. Three connector trails approved in 1999 would be built. There would be insufficient staff to work cooperatively with private landowners in order to protect trails and trail right-of-ways that connect private lands with park features.

Few historic trails would be rehabilitated. Decisions about which trails to maintain would be based on available staff, equipment, and safety, with little consideration of the cultural significance of the trail system as a whole. Trails would be maintained with equal emphasis on protecting cultural and natural resource values. Features that make park trails historically important, such as finely crafted stone work, would be maintained infrequently. There would be limited emphasis on using materials that are historically appropriate, keeping trails on the original routes, retaining historic trail names, or using appropriate styles of construction.

Trailheads, some summits, carriage road junctions, and easily accessible intersections would be signed with cedar log signs. Most interior intersections would use routed wooden signs. Embedded fiberglass trailhead exhibits would provide trail name, a map, and resource protection and safety information. Warning signs on the most hazardous trails would be black and yellow metal or wooden routed. In this alternative, styles of signs might change over time. Some trail names would be historic and some would be modern. Trail markings such as cairns, blazes, and blue tabs on trees would continue to be used, although some markings would not be historically accurate. Historic vistas would not be managed. Abandoned trails would not be rehabilitated, maintained, or stabilized by the NPS.

Over a ten year period, wood, soil, gravel, and stone for rehabilitation and maintenance would be obtained from outside the park (about 1,090 cubic yards) and taken in limited amounts in the park (about 3,260 cubic yards) from near each trail work site.

Vegetation clearing would be managed primarily through volunteer labor. Because trails would only be cleared every 10 years or so, there would be extensive clearing along trail corridors in order to keep trails free of brush for long periods of time. Revegetation of trail-related impacts and work sites with native plants would continue to occur infrequently. Little effort would be made to prevent the introduction of non-native species from soil and gravel imported from outside the park.

Funding and staffing would be insufficient to support the widespread addition of boardwalks, bog walks, culverts, and other structures to protect wetlands and other sensitive habitats. Maintenance on all trails would be adequate to prevent only the most severe erosion of surface materials and stone features such as steps, walls, culverts, and water bars. Park biologists would review areas considered for major trail work, but much routine maintenance work would not involve such reviews. Trails would be closed or rerouted when rare species were identified near trails and would be threatened by trail rehabilitation, maintenance, or use. Occasional backcountry trail patrols by rangers would occur.

Actions Related to Providing High Quality Visitor Experiences

Trails would offer opportunities to experience a variety of park habitats, and would vary in difficulty from very easy to extremely difficult. However, no trails would meet standards established by the Americans with Disabilities Act. There would be little effort to monitor trail use, or to manage use so that trails on Isle au Haut, Schoodic and the western side of MDI would provide opportunities for solitude. There would be sufficient trail maintenance to assure hiker safety. Dogs would be allowed throughout the trail system except on trails with ladders; there would be insufficient protection staff to enforce leash laws.

Actions Related to Public Education

Four FOA Ridgerunners would continue with Leave No Trace education and cairn maintenance as long as donors fund the program each year. There would be no official park hiking map produced by the NPS, although privately produced maps would be available. There would be 11 informational exhibits at trailheads. The NPS would offer occasional interpretive programs about the history of the park's trail system. Leave No Trace outreach education for interested groups would continue.

Description of Trail System Changes

All existing trails would continue to be maintained. The only change would be the addition of three village connectors listed below. Maps 2 and 3 depict the trail system on Mount Desert Island as it would be under Alternative 1.

Proposed New Trail Additions

- None

Proposed New Trail Connections to Villages:

- Duck Brook Connector Trail from Bar Harbor to Duck Brook Road
- Great Meadow Loop (partially constructed in 1999)
- Western Mountain Road Connector Trail

Abandoned Trails Proposed for Rehabilitation:

- None

Proposed Trail Deletions:

- None

ALTERNATIVE 2: REHABILITATION WITH EMPHASIS ON PROTECTING NATURAL RESOURCES

In this alternative, there would be a major trail rehabilitation program. Most trails would be rehabilitated, maintained, and managed with an emphasis on protecting natural resources. A few culturally significant historic trails would be rehabilitated to a high level of cultural integrity. A number of currently maintained trails or trail segments would be abandoned and removed from the trail system on MDI. Conflicts between protecting natural resources and protecting cultural resources would usually be resolved in favor of natural resources. Decisions about which trails to include in the trail system and which trails to rehabilitate to a high level of cultural integrity would be based on a systematic review of all trails, using four criteria:

- effects of the trail on natural resources,
- cultural resource significance,
- visitor experiences provided by the trail,
- effects of the trail on local communities and neighbors (see Appendix 2 for details).

There would be enhanced education and protection efforts, and trail use would be managed for natural and cultural resource preservation and to provide high quality visitor experiences.

Actions Related to Protecting Natural and Cultural Resources

Seventeen miles of trails would be abandoned on Mount Desert Island; the NPS would no longer map, mark, or maintain these trails. This action would leave 101 miles of maintained trails in the park on MDI. Nineteen miles of trail would be managed on Isle au Haut, and three miles on the Schoodic Peninsula. Trails on Baker and Bar Islands would be maintained; no trails would be developed on other park islands. Three connector trails on MDI approved in 1999 would be constructed. Social trails on Little Moose Island would be revegetated and the island would be closed to public use to protect this State-listed sensitive habitat. If social trails developed on other park islands, the NPS would consider restricting use to protect sensitive habitats.

Most park trails or trail sections would be rehabilitated and maintained primarily to assure that natural resources are preserved. For example, when the original trail route or increased use levels jeopardized natural resources, the trail would be rerouted or non-historic features (such as boardwalks, bog walks, and other structures) would be added. If natural resource threats could not be mitigated, the park would consider stabilizing the trail and closing it to public use. On most trails, cedar log signs would be used as often as possible to reduce vandalism. New signs would include resource protection signs, signs interpreting historic trails, and posts with regulatory symbols (no camping, etc.) at selected trailheads. Cairns and painted blue blazes would be used extensively to help hikers follow trails and metal tabs would be removed. The names of these trails would probably not change.

A few important historic trails or trail sections would be rehabilitated and maintained with an emphasis on protecting their cultural resource values (character-defining features such as finely crafted stone work, trail name, signs, markings, trail routes, etc.). These trails have yet to be determined. Historically accurate cairns would be used. Trail names would revert to the historic name. Routed intersection signs would replace cedar log signs at interior trail intersections. Every effort would be made to have these trails follow original routes. Materials would match as

closely as possible those used in the past to retain the highest degree of integrity. However, no historic vistas would be rehabilitated on these or any other trails.

No abandoned trails would be rehabilitated; however, sections of abandoned trails with severe natural resource impacts would be stabilized to prevent further damage. The beginning sections of abandoned trails, and where they intersect with other trails, would be obscured. Abandoned trails would not be mapped, marked, maintained, or publicized for use. However, they would remain open to use except when safety concerns existed or use would further threaten resources.

All wood, soil, gravel, and stone used to rehabilitate and maintain trails would be obtained only from outside the park. Approximately 11,970 yards of soil, gravel, and stone would be needed. At accessible work sites, these would be transported by land. At inaccessible work sites, helicopters or other methods would be used, and staging/storage areas would be designated and cleared as needed. When inaccessible work sites required large amounts of material, trail closure or rerouting would be considered.

Vegetation along most trail corridors would be cut every three to five years and would be limited in extent to prevent trail widening and subsequent erosion. All cutting would be timed to minimize effects on wildlife. Trail work sites and areas trampled and eroded would be revegetated with native plant species. Because soil and gravel would be obtained outside the park, the risk of non-native species introduction would be high. The NPS would try to ensure that imported materials were sterilized before use. All work sites would be monitored for exotic species and treated if necessary.

Trail use would be managed to keep hikers on trails, thereby protecting sensitive habitats and preserving important historic constructed trail features. Monitoring of visitor use levels would occur mainly on trails and trail sections with the highest natural resource values or threats. New signs would include a few additional trailhead exhibits, resource protection messages, signs interpreting trails history, and posts with international regulatory symbols.

Actions Related to Providing High Quality Visitor Experiences
In this alternative, dogs would not be allowed on hiking trails and there would be strict enforcement of this prohibition.

To monitor the hiking experience, hikers would be surveyed as described in the Actions Common to Alternatives 2, 3, and 4 section of this document.

All of the listed resource actions for Alternative 2 would influence the quality of the hiking experience. For example, the size and configuration of the system would affect the availability of on-trail, off trail, and abandoned-trail experiences. Improved trail conditions, as well as better maps, signs, and other information would also affect the quality of the hiking experience.

Actions Related to Public Education
See page 29, Actions Common to Alternatives 2, 3, and 4.

Actions Related to Trail System Sustainability
See page 29, Actions Common to Alternatives 2, 3, and 4.

Description of Trail System Changes

The following lists are changes proposed under Alternative 2 to the trail system, including new trails to be added, new trail connections to villages, abandoned trails to be rehabilitated, and existing trails to be deleted. Existing trails not listed here are still included in the system. Maps 6 and 7 show the trail system as it would appear under Alternative 2.

Proposed New Trail Additions:

- Giant Slide Trail (private land)–reroute trail from Rt. 198 away from Giant Slide Rd.

Proposed New Trail Connections to Villages:

- Duck Brook Connector Trail from Bar Harbor to Duck Brook Road
- Great Meadow Loop (Bar Harbor, partially constructed in 1999-2000)
- Western Mountain Road Connector Trail

Abandoned Trails Proposed for Rehabilitation:

- None

Proposed Trail Deletions:

- West Ledge Bernard Mountain Trail (entire)
- Western Mountain Trail (section from Long Pond Road to Great Pond Trail)
- Mansell Mountain Trail (entire)
- Great Notch Trail (entire)
- Gilley Trail (entire)
- Ledge Trail (section from from Ledge Trail South to St. Sauveur Trail)
- St. Sauveur Trail (section west of Valley Peak Trail – about 1/2 mile section)
- Maple Spring Trail (section from Giant Slide Trail to Sargent Mt. South Ridge Trail)
- Eagle Lake Trail (entire)
- Jordan Pond Carry Path (section from Eagle Lake Trail to South Bubble Trail)
- Hunters Brook Trail (section from Park Loop Road to carriage road)
- Upper/Lower Hadlock Trails (section from lower Hadlock Pond to Hadlock Brook Trail)
- Bald Peak Trail (entire)
- Stratheden Trail (entire)
- Kebo Mountain Trail (section from Park Loop Road to Hemlock Trail)
- Jordan Pond (west side – from Deer Brook Trail to carriage road bridge)
- Triad Pass (section from carriage road west of Wildwood Stables to Hunters Brook Trail)
- West Face Cadillac Trail (entire)
- Jordan Cliffs Trail (section from Deer Brook to Sargent summit)
- Western 0.5 miles of Giant Slide trail (to be replaced by new reroute)
- Golf Links to Norumbega Trail (entire)
- Gorham Mountain Trail (section between Cadillac Cliffs Trail junctions)
- Unnamed section from Gorham Mountain Trail to Bowl Trail
- Unnamed section from West Beehive Trail to Bowl Trail

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Map 6. Proposed Hiking Trail System, Alternative 2, Mt. Desert Island—East Side

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Map 7. Proposed Hiking Trail System, Alternative 2, Mount Desert Island—West Side

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ALTERNATIVE 3: REHABILITATION TO PROTECT NATURAL AND CULTURAL RESOURCES (NPS PREFERRED ALTERNATIVE)

In this alternative, a modestly expanded network of trails would be rehabilitated and maintained. The trail system would include several trails or trail sections that are currently abandoned, many of which have high cultural value. A few new trails or trail sections would be added, and a few trails that are currently maintained would be abandoned. Each trail included in the system would be rehabilitated, maintained, and managed on a case by case basis with consideration given to protecting both natural and cultural resource values. Trails would be selected for rehabilitation and continued maintenance based on a systematic review of individual trails, as described in Alternative 2 and Appendix 2.

Education and protection efforts would be enhanced, and trail use would be managed for natural and cultural resource preservation and to provide high quality visitor experiences.

Actions Related to Protecting Natural and Cultural Resources

There would be approximately 126 miles of maintained trails in the park on Mount Desert Island, 19 miles on Isle au Haut, and three miles on the Schoodic Peninsula. Trails on Baker and Bar Islands would be maintained. About eight miles of abandoned trails and four miles of newly constructed trails would be added to the hiking trail system on MDI. Three miles of currently maintained trails would be abandoned. Seven connector trails on MDI totaling about nine miles, including the three approved in 1999, would be constructed. Most social trails on Little Moose Island would be revegetated; selected social trails would be rehabilitated and visitor education efforts to protect resources would be increased. No trails would be developed on other park islands because these islands protect sensitive habitats. If social trails developed on park islands, use restrictions or other management actions would be considered.

Most trails would be rehabilitated and maintained in a manner that preserves a high degree of cultural integrity. Protecting character-defining features such as construction styles, the type of construction materials, trail routes, trail names and signs, and trail markings, such as cairns and blazes, would be a high priority. When historically appropriate character-defining features could not adequately protect natural resources, were confusing to hikers, or could not be protected from theft or vandalism, trail closures or reroutes and non-historic features such as boardwalks, bog bridges, scree walls, cedar log signs, and other structures would be used. Non-historic features necessary to solve the immediate problem would be as unobtrusive as possible. Cedar log signs, trailhead exhibits, and warning signs would remain near trailheads as in Alternative 1. Historic routed wooden signs listing trail names would replace cedar logs at all interior trail intersections. New signs would be as in Alternative 2. Historically appropriate cairns and blue blazes would be used to mark trails. A limited number of historic vistas that are documented through research would be cleared and maintained.

Two historically important abandoned trails, the Gurnee Path and the Goat Trail on Pemetic Mountain, would not be included in the maintained trail system because rocks dislodged on these trails could fall on vehicles passing below the trail. In addition, the Goat Trail crosses the Park Loop Road where there is no space for parking or a bus stop. Visitor experiences on the Gurnee Path have been compromised by high volumes of road traffic, associated noise, and the placement of power lines across the view.

On the Gurnee Path, the Goat Trail, and the many other remaining abandoned trails, important character-defining features would be stabilized to prevent further deterioration. These abandoned trails would not be mapped, marked, maintained, or publicized for use. The beginning sections of abandoned trails and where they intersect with other trails would be obscured. If some sections of abandoned trails were unsafe or threatened park resources they would be closed to public use.

All logs would be obtained from outside the park. Up to four cubic yards of soil, gravel, or stone per 50 linear feet of trail[4] would be taken from natural areas within the park as close as possible to the work site. These sites would be rehabilitated to prevent erosion and conceal them from visitors. When larger quantities of soil, gravel, or stone were needed, they would be purchased from sources outside park boundaries and transported to work sites, using the most safe, efficient, and resource-protective methods available. A total of about 10,950 cubic yards of materials would be removed from the park and 5,400 cubic yards imported. Transport methods might include helicopters or pack stock. When large amounts of materials were required at inaccessible work sites, the availability of and impacts of removing materials on site would be weighed against the costs (financial, environmental, and social) of purchase and transport. Under these circumstances, trail closure or rerouting would also be considered.

Vegetation along trail corridors would be cut every three to five years. This cutting would be limited in extent to prevent trail widening and subsequent erosion. All cutting would be timed to minimize effects on wildlife. Trail work sites and areas trampled and eroded would be revegetated with native plant species. Because some materials would be obtained outside the park, the risk of non-native species introduction would be high. The NPS would try to ensure that imported materials were sterilized before use. All work sites would be monitored for exotic species and treated if necessary.

Trail use would be managed in a manner that protected sensitive habitats and preserved important constructed historic features. On trails with important cultural and natural resources, visitor use levels would be monitored. New signs would include a few additional trailhead exhibits, resource protection messages, signs interpreting trails history, and posts with international regulatory symbols. Trailhead exhibit and warning signs would remain as in Alternative 1.

Actions Related to Providing High Quality Visitor Experiences

Leashed dogs would be allowed on most trails. Dogs would be prohibited on trails with ladders and selected other trails where the terrain makes it difficult to walk with a leashed dog, such as the Giant Slide Trail, Penobscot Mountain Trail, the West Face Cadillac Mountain Trail and others.

To monitor the hiking experience, hikers would be surveyed as described in the Actions Common to Alternatives 2, 3, and 4 section of this document.

[4] This would result in a depression approximately 6’ wide x 12’ long x 1 1/2’ deep. This amount is less than was taken historically, but is more acceptable because it would be small enough to revegetate quickly and would not leave an obvious scar on the landscape.

All of the listed resource actions for Alternative 3 would influence the quality of the hiking experience. For example, the size and configuration of the system would affect the availability of on-trail, off trail, and abandoned trail experiences. Improved trail conditions, as well as better maps, signs, and other information would also affect the quality of the hiking experience.

Actions Related to Public Education

See page 29, Actions Common to Alternatives 2, 3, and 4.

Actions Related to Trail System Sustainability

See page 29, Actions Common to Alternatives 2, 3, and 4.

Description of Trail System Changes

Trail System

The following lists are changes proposed under Alternative 3 to the trail system, including new trails to be added, new trail connections to villages, abandoned trails to be rehabilitated, and existing trails to be deleted. Existing trails not listed here would continue to be included in the system. Maps 8 and 9 depict the trail system on Mount Desert Island as it would be under Alternative 3.

Proposed New Trail Additions:

- Blackwoods Campground to Gorham Mountain Parking Lot
- Giant Slide Trail (private land)–reroute trail access from Rt. 198 away from Giant Slide Road
- Schooner Head Road Path extension to Sand Beach
- Seawall Campground Trail connecting with Seawall Picnic Area, Wonderland, and Ship Harbor Trail
- Little Moose Island (Schoodic)

Proposed New Trail Connections to Villages:

- Duck Brook Connector Trail from Bar Harbor to Duck Brook Road
- Schooner Head Road Path with connections to Champlain Mountain, Sand Beach, and Great Head.
- Gorge Path to Great Meadow Loop (historic path connecting Stratheden Path, Kebo Mountain, and Gorge Path with Bar Harbor)
- Great Meadow Loop (Bar Harbor, partially constructed in 1999-2000)
- Lurvey Spring Rd (from near Smugglers Den Campground) connecting to southern end of Valley Trail)
- Seaside Path (historic route connecting Jordan Pond with village of Seal Harbor)
- Western Mountain Road Connector Trail

Abandoned Trails Proposed for Rehabilitation:

- Amphitheatre Trail (short section from Asticou/Jordan Pond Trail to Little Harbor Brook Carriage Road Bridge)
- Canon Brook Trail to State Route 3

- Echo Lake connectors--connecting south end of Canada Cliffs Trails with Echo Lake Beach (on east side of Echo Lake Road), and Ledge Trail to St. Sauveur Mountain.
- Gorge Path to Great Meadow Loop (connecting Stratheden Path, Kebo Mountain, Gorge Path, and North Ridge Cadillac with Bar Harbor)
- Great Cave Path
- Green and Black Trail connecting Canon Brook Trail (as listed above) and Dorr/Cadillac systems with The Bowl and Champlain Mountain Trails
- Hadlock Brook Trail (old routes with direct connections to Grandgent Trail)
- Homans Path
- Jordan South End path (from Asticou/Jordan Pond Trail to Penobscot Mountain Trail)
- Schooner Head Road Path with connections to Champlain Mountain, Sand Beach, and Great Head.
- Seaside Path (entire)

Proposed Trail Deletions:

- Hadlock Brook (short steep eroded middle section)
- Western Mountain Trail
- Gilley Trail
- Mansell Mountain Trail
- Ledge Trail (from Ledge Trail South to St. Sauveur Trail)
- St. Sauveur (segment west of Valley Peak Trail – about 1/2 mile section)
- Western 0.5 miles of Giant Slide trail (to be replaced by new reroute)

Map 8. Proposed Hiking Trail System, Alternative 3, Mt. Desert Island—East Side

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Map 9. Proposed Hiking Trail System, Alternative 3, Mt. Desert Island--West Side

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ALTERNATIVE 4: REHABILITATION WITH EMPHASIS ON PROTECTING CULTURAL RESOURCES

In this alternative, an extensive network of trails would be rehabilitated and maintained. This system would include many trails that are currently abandoned, and most trails that are historically important. Most trails or trail sections would be rehabilitated, maintained, and managed with an emphasis on protecting cultural resource values. Trails would be selected for rehabilitation and continued maintenance based on a systematic review of individual trails, as described in Alternative 2 and Appendix 2. Conflicts between protecting natural resources and protecting cultural resources would usually be resolved in favor of cultural resources.

There would be enhanced education and protection efforts, and trail use would be managed for natural and cultural resource preservation and to provide high quality visitor experiences.

Actions Related to Protecting Natural and Cultural Resources

There would be approximately 157 miles of maintained trails in the park on Mount Desert Island, 19 miles on Isle au Haut, and three miles on the Schoodic Peninsula. Trails on Baker and Bar Islands would be maintained. About thirty-six miles of abandoned trails and five miles of newly constructed trails would be added to the hiking trail system on MDI. A half mile of currently maintained trail would be abandoned but a reroute would be constructed (Giant Slide Trail). Seven connector trails on MDI totaling nine miles, including the three approved in 1999, would be constructed. Social trails on Little Moose Island and other park islands would be treated as in Alternative 3 (see page 41).

Most trails would be rehabilitated and maintained to preserve a high degree of cultural integrity. In addition to returning many historic trails to the system, several other actions listed below would contribute to a greater emphasis on cultural resources than in Alternative 3. Protecting character-defining features such as construction styles, the type of construction materials, trail route, trail names and signs, and trail markings such as cairns and blazes would be a high priority. When historically appropriate character-defining features could not adequately protect natural resources, trail closures or reroutes and non-historic features such as boardwalks, bog bridges, scree walls, cedar log signs, and other structures would be used. Non-historic features used to solve the immediate problem would be as unobtrusive as possible. Unlike Alternative 3, hiker confusion, theft of signs, and vandalism would be accepted as a cost of maintaining trails to a higher degree of historic integrity. Historic routed wooden signs listing trail names would replace all cedar log signs, including those at trailheads. Trailhead exhibits and warning signs would remain near trailheads as in Alternative 1. New signs would be as in Alternative 2. Trail names would revert to historic names including the “colored path system.” All historic vistas that are documented through research would be cleared and maintained.

Two historically important abandoned trails, the Gurnee Path and the Goat Trail on Pemetic Mountain, would not be included in the maintained trail system because rocks dislodged on these trails could fall on vehicles passing below the trail. In addition, the Goat Trail crosses the Park Loop Road where there is no space for parking or a bus stop. Visitor experiences on the Gurnee Path have been severely compromised by high volumes of traffic, associated noise, and the placement of power lines across the view.

On the Gurnee Path, the Goat Trail, and other remaining abandoned trails, important character-defining features would be stabilized to prevent further deterioration. These abandoned trails would not be mapped, marked, maintained, or publicized for use. The beginning sections of abandoned trails and where they intersect with other trails would be obscured. If some sections of abandoned trails are unsafe or threaten park resources, these sections would be closed to public use.

All logs would be obtained from outside the park. Up to four cubic yards of soil, gravel, or stone per 50 linear feet of trail[5] would be taken from natural areas within the park as close as possible to the work site. These sites would be rehabilitated to prevent erosion and conceal them from visitors. When larger quantities of soil, gravel, and stone were needed, they would be purchased from sources outside park boundaries and transported to work sites, using the most safe, efficient, and resource-protective methods available. A total of about 12,670 cubic yards of materials would be removed from the park and 6,240 cubic yards imported. Transport methods might include helicopters or pack stock. When large amounts of materials were required at inaccessible work sites, the availability and impacts of removing materials on site would be weighed against the costs (financial, environmental, and social) of purchase and transport. Trail closure or rerouting would also be considered under these circumstances.

Vegetation along most trail corridors would be cut every three to five years. This cutting would be limited in extent to prevent trail widening and subsequent erosion. On trails built by the Civilian Conservation Corps, historic standards would be followed; vegetation would be extensively cleared to allow hikers to have long views into the surrounding forest. All cutting would be timed to minimize effects on wildlife. Trail work sites and areas trampled and eroded would be revegetated with native plant species. Because some materials would be obtained outside the park, the risk of non-native species introduction would be high. The NPS would try to ensure that imported materials were sterilized before use. All work sites would be monitored for exotic species and treated if necessary.

Trail use would be managed to keep hikers on trails; historically appropriate features and techniques such as coping stones, constructed tread, and reestablishment of former grades would be used. Trailhead exhibit and warning signs would remain as in Alternative 1. New signs would include a few additional trailhead exhibits, resource protection messages, signs interpreting trails history, and posts with international regulatory symbols. On trails and trail sections with the highest cultural resource values or threats, visitor use levels would be monitored.

Actions Related to Providing High Quality Visitor Experiences

In this alternative, leashed dogs would be allowed on most trails, as in Alternative 3.

To monitor the hiking experience, hikers would be surveyed as described in the Actions Common to Alternatives 2, 3, and 4 section of this document.

[5] This would result in a depression approximately 6’ wide x 12’ long x 1 1/2’ deep. This amount is less than was taken historically, but is more acceptable because it would be small enough to revegetate quickly and would not leave an obvious scar on the landscape.

All of the listed resource actions for Alternative 4 would influence the quality of the hiking experience. For example, the size and configuration of the system would affect the availability of on-trail, off trail, and abandoned-trail experiences. Improved trail conditions, as well as better maps, signs, and other information would also affect the quality of the hiking experience.

Actions Related to Public Education

See page 29, Actions Common to Alternatives 2, 3, and 4.

Actions Related to Trail System Sustainability

See page 29, Actions Common to Alternatives 2, 3, and 4.

Description of Trail System Changes

The following lists are changes proposed under Alternative 2 to the trail system, including new trails to be added, new trail connections to villages, abandoned trails to be rehabilitated, and existing trails to be deleted. Existing trails not listed here would continue to be included in the system. Maps 10 and 11 show the trail system on Mount Desert Island as it would appear under Alternative 4.

Proposed New Trail Additions:

- Blackwoods Campground to Gorham Mountain Parking Lot
- Giant Slide Trail (private land)–reroute trail from Rt. 198 away from Giant Slide Road
- Lurvey Spring Rd (from near Smugglers Den Campground) connecting to southern end of Valley Trail
- Seawall Campground Trail connecting with Seawall Picnic Area, Wonderland, and Ship Harbor Trails
- Oak Hill Picnic Area to the West Ledge Trail (Bernard Mtn.)
- Schooner Head Road Path extension to Sand Beach
- Little Moose Island (Schoodic)

Proposed New Trail Connections to Villages:

- Duck Brook Connector Trail from Bar Harbor to Duck Brook Road
- Schooner Head Road Path with connections to Champlain Mountain, Sand Beach, and Great Head.
- Gorge Path to Great Meadow Loop (historic path connecting Stratheden Path, Kebo Mountain, Gorge Path, and North Ridge Cadillac with Bar Harbor)
- Great Meadow Loop (Bar Harbor, partially constructed in 1999)
- Lurvey Spring Rd (from near Smugglers Den Campground) connecting to southern end of Valley Trail)
- Seaside Path (historic trail connecting Jordan Pond with village of Seal Harbor)
- Western Mountain Connector Trail

Abandoned Trails Proposed for Rehabilitation

- Amphitheatre Trail - short section from Asticou/Jordan Pond Trail to Little Harbor Brook Carriage Road Bridge and longer section continuing up the drainage to near Sargent Pond
- Aunt Betty Pond Trail
- Chasm Brook Trail

- Curran Path
- Day Mountain Cave Trail
- East Ridge Cadillac Trail
- Echo Lake connectors--connecting south end of Canada Cliffs Trails with Echo Lake Beach (via old Canada Cliffs Trail), and Ledge Trail to St. Sauveur
- Enoch Mountain area trails and the colored path system
- George Dorr Bike Path and connections to Beachcroft Trail
- Gorge Path to Great Meadow Loop (connecting Stratheden Path, Kebo Mountain, Gorge Path, and North Ridge Cadillac with Bar Harbor)
- Great Cave Trail
- Green and Black Trail connecting Canon Brook Trail and Dorr/Cadillac systems with the Bowl and Champlain Mountain Trails
- Green Mountain Railroad Route
- Hadlock Brook Trail – same as Alternative 3
- Homans Path
- Huguenot Head to Otter Creek Road at the Canon Brook Trailhead.
- Jordan Mountain (Penobscot) South End (south route)
- Jordan Mountain (Penobscot) South End to Asticou (southeast route)
- McFarland Trail
- North Bubble Cliff Trail
- Old Canon Brook Trail
- Potholes/Eagles Crag Trail
- Schooner Head Road Path with connections to Champlain Mountain, Sand Beach, and Great Head.
- Seaside Trail
- Spring Trail
- Upper Ladder Trail
- Van Santford Trail sections near Wildwood Stables

Proposed Trail Deletions

- Western 0.5 miles of Giant Slide trail (to be replaced by new reroute)

Map 10. Proposed Hiking Trail System, Alternative 4, Mt. Desert Island--East Side

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Map 11. Proposed Hiking Trail System, Alternative 4, Mt. Desert Island—West Side

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TABLE 1: ACADIA NATIONAL PARK TRAIL MILEAGE BY ALTERNATIVE (DOES NOT INCLUDE SOCIAL TRAILS OR TRAILS OUTSIDE PARK).

		Alternative 1	Alternative 2	Alternative 3	Alternative 4
	Mount Desert Island				
A	Existing Trails Proposed for Rehabilitation or Reroute (includes Bar Island)	110.6	92.8	107.2	110.1
B	Abandoned Trails Proposed for Rehabilitation	0	0	8.4	35.8
C	Fire Roads Used as Trails	6.7	6.7	6.7	6.7
D	Proposed New Trail Additions	1.2	1.2	4.0	4.6
E	**Total Mount Desert Island Trail Mileage (A-D)**	**118.5**	**100.7**	**126.3**	**157.2**
F	Proposed Trail Deletions	0	-17.2	-3.1	-0.5
G	Proposed New Trail Connections to Villages (includes several abandoned trails proposed for rehabilitation in Alts. 3 and 4)	1.2	1.2	8.5	8.5
	Isle au Haut				
H	Existing Trails Proposed for Rehabilitation	17.8	17.8	17.8	17.8
I	Fire Roads Used as Trails	1.4	1.4	1.4	1.4
J	**Total Isle au Haut Trail Mileage (H-I)**	**19.2**	**19.2**	**19.2**	**19.2**
	Schoodic				
K	Existing Trails Proposed for Rehabilitation	2.6	2.6	2.6	2.6
L	Proposed New Trail Additions	0	0	0.8	0.8
M	**Total Schoodic Trail Mileage (K-L)**	**2.6**	**2.6**	**3.4**	**3.4**
N	**Baker Island Trail Mileage**	**0**	**0.6**	**0.6**	**0.6**
	TOTAL MILES MAINTAINED TRAILS (E+J+M+N)	**140.3**	**123.1**	**149.5**	**180.4**

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TABLE 2: SUMMARY COMPARISON OF ALTERNATIVE ACTIONS

Actions	Alternative 1: No Action (Describes conditions as of 1999.)	Alternative 2: Rehabilitation with Emphasis on Protecting Natural Resources	Alternative 3: Rehabilitation to Protect Natural and Cultural Resources (NPS Preferred Alternative)	Alternative 4: Rehabilitation with Emphasis on Protecting Cultural Resources
Actions Related to Protecting Natural and Cultural Resources				
Size/Configuration of Trail System (Each alternative includes some trail additions and deletions: See Table 1 for details.)	Total: 140.3 miles 118.5 miles MDI 2.6 miles Schoodic 19.2 miles Isle au Haut	Total: 123.1 miles 100.7 miles MDI 2.6 miles Schoodic 19.2 miles Isle au Haut 0.6 mile Baker Island	Total: 149.5 miles 126.3 miles MDI 3.4 miles Schoodic 19.2 miles Isle au Haut 0.6 mile Baker Island	Total: 180.4 miles 157.2 miles MDI 3.4 miles Schoodic 19.2 miles Isle au Haut 0.6 mile Baker Island
Preserving Historic Character	Minimal rehabilitation of trails or trail sections would occur, and it would not necessarily be to historic standards. Only the most urgent safety needs or natural or cultural resource damage would be addressed. There would be equal emphasis on protecting natural and cultural values. Decisions would not consider the trail system as a whole.	Most trails would be rehabilitated and maintained to protect natural resources. On these trails, rerouting and adding non-historic features would be routine practices. A few important historic trails would be rehabilitated and maintained to preserve their cultural resource integrity. On these few trails, character-defining features (construction style, materials, trail route, trail name, signs, and markings, etc) would be rehabilitated or retained to preserve their historic character.	All trails included in the system would be rehabilitated, maintained, and managed on a case by case basis, protecting natural resource values and preserving cultural integrity. Rehabilitating and retaining character- defining features would be a high priority on all trails. Non-historic features would be used only when historically appropriate character-defining features could not protect natural resources, were confusing to hikers, or could not be protected from theft or vandalism.	Same as Alternative 3, except that non-historic features would be used only when natural resources could not be protected. Increased hiker confusion, theft of signs, and vandalism would be accepted as a cost of maintaining trails to a high degree of historic integrity.
Trail Signs	Cedar log signs would be used as often as possible to reduce vandalism. Some more remote interior intersections would use routed wooden signs. Styles of signs might change over time.	A few of the most important historic trails would use historic routed signs (replacing cedar log signs) at interior trail intersections. All other trails would use cedar log signs to reduce vandalism.	Historic routed wooden signs would replace cedar logs at all interior trail intersections. Cedar logs signs would remain at trailheads.	Historic routed wooden signs would replace all cedar log signs, including those at trailheads.
Trail Names	Trail names would include both historic and modern names, and would not change.	Same as Alternative 1, except the few trails rehabilitated for cultural resource values would revert to historic names.	All trails would revert to their historic names unless the potential for confusing hikers is high. Abandoned trails that are reopened would be given their historic names.	All trail names would revert to those used at the period of historic significance, in spite of the potential for hiker confusion. Abandoned trails that were reopened would be given their historic names.
Trail Markings	Rock cairns, blue tabs on trees, and painted blue blazes would be used, although some markings would not be historically appropriate.	On most trails, conical cairns and painted blue blazes would be used extensively to keep hikers on trails. Historically appropriate cairns would be used on the few trails rehabilitated for cultural resource values, except when they could not adequately protect natural resources, wre confusing to hikers, or could not be protected from theft or vandalism.	Historically appropriate cairns would be used on all rehabilitated trails except when cairns could not adequately protect natural resources or were confusing to hikers. On all trails, painted blue blazes would be used extensively to keep hikers on trails. On new trails, conical cairns would be used.	Historically appropriate trail markings would be used on all trails except when they could not adequately protect natural resources. This would include all parts of the “colored path system.” Hiker confusion, theft of signs, and vandalism would be accepted as a cost of maintaining trails to a high historic standard. On new trails, conical cairns would be used.
Vistas	No historic vistas rehabilitated.	Same as Alternative 1.	A few historically documented vistas would be rehabilitated, with limited removal of vegetation.	All historically documented vistas would be rehabilitated. There would be extensive clearing of underbrush along CCC trails.

Actions Related to Protecting Natural and Cultural Resources (continued)				
Treatment of Abandoned Historic Trails	Abandoned trails would not be rehabilitated, maintained, stabilized or publicized for use.	No abandoned trails would be rehabilitated, maintained, or publicized for use. Sections of abandoned trails with severe natural resource impacts would be stabilized to prevent further damage. The beginning sections of abandoned trails and where they intersect with maintained trails would be obscured.	Some abandoned trails would be rehabilitated and opened for public use. The Gurnee Path and the Goat Trail would not be included in this group. Sections of abandoned trails with severe natural resource impacts or cultural resource degradation would be stabilized to prevent further damage but would not be publicized for use.	Many abandoned trails would be rehabilitated and opened for public use. The Gurnee Path and the Goat Trail would not be included in this group. Sections of abandoned trails with severe natural resource impacts or cultural resource degradation would be stabilized to prevent further damage but would not be publicized for use.
Source/Amount of Construction Materials (Wood, soil, gravel, stone)	Limited amounts of materials would be obtained from both inside and outside the park.	Approximately 11,970 yards of materials would be obtained from outside the park and transported to work sites. Transportation methods might include helicopters, vehicles, pack animals, and wheelbarrow. When inaccessible worksites required large amounts of material, trail closure or trail rerouting would be considered.	All logs would be obtained from outside the park. For minor trail rehabilitation or maintenance, small quantities of soil, gravel, and stone would be taken from near the work site. These quantities would total 10,950 cubic yards. Approximately 5,400 cubic yards of soil, gravel, and stone would be purchased from sources outside the park and transported to work sites. Transport methods might include helicopters or pack animals. Inaccessible worksites needing large amounts of material treated as in Alternative 2.	Same as Alternative 3, except 12,670 cubic yards of materials would be removed from inside the park and 6,240 cubic yards would be imported..
Vegetation Management	Vegetation would be cleared every ten years or so, with extensive clearing along trail corridors. Imported soil and gravel would seldom be treated to prevent introduction of non-native plants by seed. Revegetation of disturbed areas would be infrequent.	Vegetation would be cut every 3-5 years and cutting would be very limited in extent. If possible, imported soil and gravel would be treated to prevent the introduction of non-native plants though seed. Revegetation of disturbed areas would occur.	On most trails vegetation would be cut every 3-5 years, in a manner that matches historic standards, except that vegetation on trails built by the CCC would not be cleared as extensively as was done historically. If possible, imported soil and gravel would be treated to prevent introduction of non-native plants though seed. Revegetation of disturbed areas would occur.	On most trails vegetation would be cut every 3-5 years, in a manner that matches historic standards. On trails built by the CCC, cutting would be extensive to allow hikers longer views into the surrounding forest. If possible, imported soil and gravel would be treated to prevent introduction of non-native plants though seed. Revegetation of disturbed areas would occur.
Keeping Hikers on Trails/ Containment Structures	There would be limited use of coping stones, fences, bog walks, and scree walls used to protect natural resources and delineate trail edges.	On most trails, there would be extensive use of non-historic containment structures such as boardwalks, bog walks, fences, scree walls, etc., especially in wetlands and on summits. On a few trails rehabilitated for cultural resource values, historically appropriate structures would be used whenever possible.	Historically appropriate containment structures would be the first choice for all trails. When they could not adequately protect natural resources, were confusing to hikers, or could not be protected from theft or vandalism, non-historic structures would be used.	Historically appropriate containment structures would be the first choice for all trails. When they could not adequately protect natural resources, non-historic structures would be used. Hiker confusion and theft and vandalism would be accepted as a cost of maintaining trails to a high degree of historic integrity.
Actions Related to Providing High Quality Visitor Experiences				
Dogs	Leashed dogs allowed, except on ladder trails. Insufficient staff to enforce leash laws.	Dogs prohibited on all hiking trails. Strict enforcement of prohibition.	Leashed dogs allowed, except on ladder trails and selected other trails with difficult terrain. Strict enforcement of leash laws.	Same as Alternative 3.
Monitoring Trail Use Levels	Little monitoring of trail use levels would occur. Trail use would not be managed in a manner that protected quality visitor experiences and opportunities for solitude.	Monitoring trails use levels would focus on trails with high natural resource values or threats from use.	Monitoring trails use levels would be balanced between trails with high cultural and natural resource values or threats to those values.	Monitoring trail use levels would focus on trails with high cultural resource values or threats from use.

Actions Related to Sustainability				
Infrastructure for Rehabilitation	1999 staff for rehabilitation was approximately 2 full time persons for one year. Training and facilities were inadequate.	A substantial, temporary increase in park staff, training, and facilities would be needed to support trails rehabilitation. However, Alternative 2 has the highest overall cost due to materials transport by helicopter.	A substantial, temporary increase in park staff, training, and facilities would be needed to rehabilitate trails. This would be more than Alternative 2 and less than Alternative 4 .	A substantial, temporary increase in park staff, training, and facilities would be needed to rehabilitate trails. This alternative would require the greatest increase to support rehabilitation.
Infrastructure for Continued Maintenance	1999 staff for continued maintenance is approximately 3 full time persons for one year. minimal training, facilities, education, or resource protection.	A modest, permanent increase in park staff, training, equipment, and facilities would be needed to support ongoing trails maintenance, education, and resource protection.	A moderate, permanent increase in park staff, training, and facilities would be needed to support ongoing trails maintenance, education, and resource protection.	A substantial, permanent increase in park staff, training, and facilities would be needed to support ongoing trails maintenance, education, and resource protection.
Average Annual Operating Costs (2001 dollars - no inflation factor)				
Trails Rehabilitation and Maintenance (staff, materials)	$311,073	1,157,600	980,900	1,134,440
Other Maintenance Support	4,500	18,000	13,500	18,000
Interpretation	27,000	48,000	61,000	68,000
Resource Management	17,500	32,000	34,000	36,000
Resource/Visitor Protection	4,700	32,000	32,000	32,000
Administration	28,800	48,000	48,000	48,000
Planning	0	3,000	3,000	3,000
Total Annual Operating Costs	394,273	1,338,600	1,172,400	1,339,400
Total Estimated Rehabilitation Program Cost (ten years)	3, 942,730	13,386,000	$11,724 ,000	$13,394,000

Note: The cost of the preferred alternative is more than the amount of rehabilitation money available through the Acadia Trails Forever program (six million dollars). Given this fact, there are two ways to still accomplish the preferred alternative. The first way is to continue rehabilitation beyond the ten year period using the Acadia Trails Forever endowment and NPS funding. The second way is to raise more rehabilitation money. No decision has been made regarding this.

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AFFECTED ENVIRONMENT

This section presents a description of the existing environment before any action is taken. Acadia National Park and the trail system have been briefly described in the Background section. What follows is a more detailed description of the environment of Acadia National Park.

NATURAL RESOURCES

Geology and Soils

The trail systems of MDI, Schoodic, and Isle au Haut traverse a variety of bedrock types, although most common are medium to coarse-grained granites. It is from these granites that most stone for the stairs on trails were cut. All bedrock types exposed in the park are solid and generally are not adversely affected by hiking; that is, they are not prone to crumbling under foot.

The effects of glaciers are seen throughout the landscape of Acadia National Park. Lying on top of bedrock is a patchy veneer of glacially derived sediments ranging in size from fine clay to boulders[6]. Durable bedrock comprises the base of many trails. However, pockets of soil and gravel are vulnerable to erosion from hikers. Soil texture and slope are primary factors influencing a trail's susceptibility to erosion.

The best soils for trails are those that are not wet, are firm after rains, are not dusty when dry, and are not subject to flooding more than once a year during the period of use. These soils have moderate slopes and few or no stones or boulders on the surface.

Lands administered by the NPS on the eastern side of MDI, the western mountains of MDI, the southern portion of Isle au Haut, and all of the Schoodic Peninsula are covered by soils of the Schoodic-Rock Outcrop-Naskeag association. Schoodic soils are found on ridges and summits. These soils are very shallow, nearly level to very steep, and excessively well drained. The surface is very gravelly, fine sandy loam that is easily blown away once exposed. Rock outcrop consists of exposed bedrock on the crests of ridges and mountains and on steep side slopes of mountains. Naskeag soils are found in depressions between shallow till ridges. These soils are moderately deep to bedrock, range between nearly level and gently sloping, and are poorly drained. Trails traversing Naskeag soils often need to be specially constructed to provide a dry walking surface. The surface layer of Naskeag soil is fine sandy loam and gravelly loamy sand. The subsoil is gravelly loamy sand.

The western side of MDI, except for the western mountains, is covered by soils of the Lyman-Scantic-Hermon complex. These soils are formed in glacial till. Lyman soils are shallow, gently sloping to very steep, and somewhat excessively drained. Scantic soils are very deep, nearly level to gently sloping, poorly drained soils formed in marine or lake sediments. High water tables in Scantic soils require that trails be constructed to provide dry walking surfaces. Scantic soils are not particularly erosive, but because of their high clay and silt content, they could

[6] Information on soils from: U.S. Dept. Agriculture, Natural Resource Conservation Service 1999. Soil Survey for Hancock County Area, Maine. 278 pp. + maps.

impair water quality if they were to erode into adjacent streams or lakes. Herman soils that are very deep, on varying slopes, and are somewhat excessively drained, were formed in glacial till. Both Lyman and Herman soils are sandy loams that are subject to erosion.

Vegetation

A great variety of plant communities overlie the Acadian landscape. These include old growth spruce forests harboring mosses and ferns; deciduous woodlands dominated by white birches; and expansive wetlands. Scrub/shrub communities on rocky outcrops are pink with flowers in spring, provide blueberries and huckleberries in summer, and turn brilliant red in fall. Trails provide access to these and other habitats throughout the park.

Over 850 species of plants are found in the park. Of these, approximately 200 are not native to the area. Some non-native species such as purple loosestrife (*Lythrum salicaria*), smooth and common buckthorn (*Frangula alnus* and *Rhamnus cathartica*), and garlic mustard (*Alliaria petiolata*) pose substantial threats to native plants and animals because of their highly invasive nature. Seeds of these, and other invasive plants, can be spread by hikers or by maintaining trails using imported soil or gravel that contains weed seeds.

Rare Species and Rare Habitats

After an extensive re-introduction effort, Acadia National Park now supports one of the most productive peregrine falcon populations in the Northeastern U.S. Peregrine falcons were delisted from the federal Endangered Species Act (16USC1531-1543) in 1999. However, they are still protected under the federal Migratory Bird Treaty Act (16USC 703-712) and are State-listed as endangered in Maine. Several trails, including two of the most popular cliff trails, the Precipice and the Jordan Cliffs Trail, are closed for much of the hiking season to protect nesting peregrine falcons.

The health and productivity of bald eagles is still of concern in Maine, where they are federally and State-listed as threatened. Currently, critical bald eagle habitat in the park is not affected by hiking trails and their use, although it has been in the past. The management of existing trails and proposals for new trails must consider possible adverse effects on bald eagles and eagle habitat.

Some park habitats are rare and especially fragile. These include the raised coastal bog near Seawall called Big Heath, assemblages of plants and animals on islands, estuaries, interior wetlands, and summits, and pockets of old growth trees and other rare forest types. Fourteen habitats are recognized as State Critical Areas. Many of these areas are especially susceptible to damage by trampling and disturbance by hiking. For example, even a small number of people traversing Big Heath could cause damage to plants, animals, and soils that would take years to recover.

Wildlife

The park supports a great diversity of animals. Over 330 species of birds have been sighted in the park. Some park islands support important populations of breeding seabirds that could be affected by human disturbance. Likewise, coastal habitats such as tidal bars, seawalls and associated wetlands, and mud flats have historically served as important resting and feeding sites

for migrating shorebirds. A number of mammals are found throughout the park, including white-tailed deer (*Odocoileus virginianus*), coyote (C*anis latrans*), red fox (*Vulpes vulpes*), raccoon (*Procyon lotor*), and many species of small mammals. Many of the most common species are those that readily adapt to the activities and land uses of humans. Beaver (*Castor canadensis*) activity in wetlands and drainages affects trail use and maintenance when impounded water floods the trail. Park waters provide habitat for brook trout (*Salvelinus fontinalis*) and a number of other native fish species. Unlike most national parks, the park has a wealth of information about historic insect fauna and other invertebrates.

The complex interactions between trails and wildlife are just beginning to be understood and few unequivocal ecological principles for trail planners are known (Trails and Wildlife Task Force, Colorado State Parks, and Hellmund Associates 1998).

Habitat Fragmentation and Development

Habitat fragmentation is the process by which the natural landscape is broken up by human activity and development into small parcels of natural ecosystems that become isolated from one another. Some scientists believe that habitat fragmentation is the single greatest threat to biological diversity. Certain species of animals such as bobcat (*Lynx rufus*), black bear (*Ursus americanus*), and moose (*Alces alces*) survive best in large natural areas free from human intrusion. Trails dissect habitat and allow for sporadic intrusions by humans, creating imaginary and real barriers, and opportunities for predators and more competitive species.

Lands adjacent to Acadia National Park are under increasing pressure for development, primarily for single family homes. Free-ranging domestic cats and dogs are often associated with residential development, and may impact wildlife. In addition, the park is already highly developed with roads, trails, and visitor service and administration facilities, especially compared to other large areas administered as National Parks. This leaves relatively few large, unfragmented natural areas in the park.

CULTURAL RESOURCES

Although Acadia National Park is thought by many to be a “natural” park, it also protects many important cultural resources. The significance of the trail system has been discussed previously. A number of properties, including the Park Loop Road, carriage road system, Islesford Historical Museum, Blue Duck Ships Store, and several lighthouses have been deemed nationally significant and are listed on the National Register of Historic Places. In total, the NPS protects 27 structures listed on the National Register. In addition, a number of important cultural landscapes representing the work of nationally known landscape architects Frederick Law Olmsted Jr. and Beatrix Farrand are found within park boundaries. The park protects several Native American archeological sites; most of these are shell middens. Acadia curates more than 800,000 artifacts including tools and furnishings from early European settlement, archives and photographs relating to the park’s history, and natural history specimens from the early 1900s.

COMMUNITIES AND NEIGHBORS

A number of townships and villages are adjacent to Acadia National Park. Lands administered by the National Park Service surround some villages. With a complex boundary and confusing

road systems that traverse both public and private lands, visitors to Acadia often fail to realize when they are on private lands and when they are within the park. Roads on Mount Desert Island, Isle au Haut and the Schoodic Peninsula carry both tourist, resident, and commercial traffic. A newly instituted public transportation system (the Island Explorer) serves Mount Desert Island during the summer months.

Because of the juxtaposition of public and private lands, decisions made by NPS officials can greatly influence the quality of life for park neighbors. Equally, decisions made by park neighbors can greatly affect park resources and the quality of visitor experiences.

VISITOR EXPERIENCES

The hiking trail system of Acadia National Park offers day hikers many options and a variety of experiences. Because the park is small and trail mileage high, perhaps the most notable feature of the trail system is that it makes the park accessible to most people, even those of modest physical ability. However, no trails fully meet standards for the Americans With Disabilities Act (42USC 12101). Many trails are rugged and steep, including some with iron rungs and ladders that allow hikers to climb cliffs. Other trails are easy or moderate in difficulty. Trails access summits, seashores, lakes, streams, and interesting geological features. Some trails have highly crafted stonework, providing a unique hiking experience. Spectacular views are reached quickly, and often easily. During the summer, the Island Explorer bus system expands hiking opportunities by allowing hikers to start and finish hikes in different locations. Some trails originate in adjacent communities and provide connections to the park.

The hiking trail system follows seasonal and daily use patterns exhibited throughout the park. During the summer, most hiking occurs in the middle of the day. The most popular trails are those near water or ascending mountains. Popular trails often have hundreds of hikers per day. Some paths are much less used and even in midsummer at midday, few hikers are seen on these trails.

A few hikers, mostly local residents, explore abandoned trails. These trails offer a high degree of solitude, even in the summer. Even fewer hikers actively bushwhack in the park, avoiding the use of any trails.

PARK OPERATIONS

As of 1999, prior to the Acadia Trails Forever program, Acadia National Park employed a trails foreman and three trail work leaders in eleven month positions, and a maintenance worker in a nine month position. Sixteen Acadia Youth Conservation Corps (AYCC) workers and four AYCC work leaders augmented this staff for eight weeks in the summer. These leaders and crews spent approximately 3/4ths of their time on trail projects. Three of four AYCC leaders spent another four months with the trail program after the AYCC season ended. Volunteers performed vegetation clearing and light duty, unskilled maintenance tasks. Volunteers contributed approximately 900 hours to trails in 1999.

The trail maintenance operation is based from the park's trail shop on McFarland Hill. The building is not accessible to persons with disabilities and is in need of repair. It has one small shared office space and a 30'x30' work and storage area with no rest room or running water.

The 1999 program included:

- Seven vehicles, including five crew-cab pickup trucks, one regular pickup truck, and two rented vehicles.
- Hand tools to outfit three work crews and the AYCC program.
- A four wheeled all terrain vehicle and cart.
- One complete overhead "high line" system for moving large rocks and material.
- The trails program is supported by a maintenance clerk and other NPS administrative staff.

ENVIRONMENTAL CONSEQUENCES

This section presents the positive and negative effects of each alternative on the resources identified in the previous section. Effects are presented in Table 3. Cumulative effects and short-term direct effects of each alternative are described throughout the table.

TABLE 3. MATRIX OF ENVIRONMENTAL EFFECTS

Topic	Alternative 1: No Action	Alternative 2: Rehabilitation with Emphasis on Protecting Natural Resources	Alternative 3: Rehabilitation to Protect Natural and Cultural Resources (NPS Preferred)	Alternative 4: Rehabilitation with Emphasis on Preserving Cultural Resources
Geology and Soils ***Erosion/sedimentation***	Without sufficient maintenance, trails would erode more than in other alternatives.	Erosion due to weathering and visitor use would be reduced from Alternative 1 because maintenance would be sufficient to prevent most erosion.	Erosion would be the same as Alternative 2.	Erosion would be the same as Alternative 2.
Materials	An estimated 3,262 cubic yards of soil, gravel, and stone would be removed from natural areas near trails over a ten year period; 1,088 cubic yards of materials would be brought from sources outside the park.	No materials would be removed from the park; an estimated 11,970 cubic yards of materials would come from outside the park.	An estimated 10,954 cubic yards of soil, gravel, and stone would be removed over a ten year period from natural areas near trails for rehabilitation and maintenance. An estimated 5,400 cubic yards of materials would be extracted and transported from outside the park. This alternative would have greater impacts on geology and soils than Alternatives 1 or 2.	An estimated 12,670 cubic yards of soil, gravel, and stone would be removed over a ten year period from natural areas near trails for rehabilitation and maintenance. An estimated 6, 240 cubic yards of materials would be extracted and transported from outside the park. This alternative would have the greatest impacts on geology and soils of all alternatives.
Quiet/Natural sounds	This alternative would best preserve natural sounds and quiet because there would be no rehabilitation requiring helicopter flights. However, other mechanized equipment would negatively affect natural sounds and quiet.	This alternative would have the most negative effects of all alternatives on natural sounds and quiet within and outside the park. It would require approximately 400 hours of helicopter flights per year. Helicopter flights would cease after the 10-year rehabilitation effort. Other mechanized equipment would also affect natural sounds and quiet.	This alternative would have less negative effects on natural sounds and quiet than Alternative 2, but more than Alternative 1. It might require approximately 40 hours of helicopter flights per year. Helicopter flights would cease after the 10-year rehabilitation effort. Other mechanized equipment would also affect natural sounds and quiet.	Similar to Alternative 3, but there would be slightly more material moved by helicopter.
Rare Species and Rare Habitats	Nesting peregrine falcons and bald eagles would be protected from human disturbance. There would be impacts related to trail use or maintenance in some special habitats such as wetlands, summits, and islands, as well as on some rare plant species.	Nesting peregrine falcons and bald eagles would be protected from human disturbance. Most other rare plant and animal species affected by trail rehabilitation, maintenance and use would be identified and protected. Special habitats such as wetlands, summits, and islands as well as some rare species would be protected.	Same as Alternative 2.	Same as Alternative 2, however the increased size of the system would make protection of rare species and habitats more difficult than Alternatives 2 and 3.
Wildlife	Trails would traverse habitats important to wildlife. Wildlife could be affected by human disturbance. In this alternative, dogs would have the most impact on wildlife because there would be less enforcement of leash laws.	This alternative would be the most beneficial to wildlife. Wildlife would be protected by reducing the size of the trail system, trail reroutes, and other management actions that restore large undeveloped areas and remove trails from shorelines and other sensitive habitats. Decisions about managing historic trails would rarely result in beaver being relocated or euthanized.. Dogs would rarely impact wildlife because they would be prohibited from trails and backcountry areas.	This alternative would be more beneficial for wildlife than Alternative 1, but not as beneficial as Alternative 2, Increasing the size of the trail system would reduce the number of large undeveloped areas. Decisions about managing historic trails would sometimes result in beaver being relocated or euthanized. Dogs would impact wildlife more than Alternative 2, but less than Alternative 1, because leash laws would be enforced.	This alternative would be more beneficial for wildlife than Alternative 1, but not as beneficial as Alternatives 2 or 3. The addition of many trail miles to the system would reduce the number of large undeveloped areas. Decisions about managing historic trails would result in beaver being relocated or euthanized. Dogs would impact wildlife about the same as Alternative 1 - greater enforcement of leash laws would be offset by greatly increased miles of trails open to dogs.
Water Quality/Wetlands	Streams, lakes and other water bodies would continue to be affected by trail erosion and sedimentation.	Trail rehabilitation and maintenance to control erosion, along with visitor use education and management, would generally protect water quality.	Same as Alternative 2.	Water quality would be protected, but not quite as well as in Alternatives 2 and 3 because of the increased size of the trail system.

TABLE 3. MATRIX OF ENVIRONMENTAL EFFECTS

Topic	Alternative 1: No Action	Alternative 2: Rehabilitation with Emphasis on Protecting Natural Resources	Alternative 3: Rehabilitation to Protect Natural and Cultural Resources (NPS Preferred)	Alternative 4: Rehabilitation with Emphasis on Preserving Cultural Resources
Vegetation ***Disturbance***	There would be approximately 1.3 acres of vegetation near trails disturbed by the removal of soil, gravel, and stone. Some areas would be revegetated with native plants.	No vegetation would be disturbed related to soil, gravel, and stone removal as all materials would be brought from outside the park. However, there would be some temporary disturbance caused by stockpiling materials. All areas disturbed would be revegetated with native plants.	There would be approximately 4.5 acres of vegetation near trails disturbed by the removal of soil, gravel, and stone. Stockpiling materials would cause some temporary disturbance; however, all areas would be revegetated with native plants.	There would be approximately 5.2 acres of vegetation near trails disturbed by the removal of soil, gravel, and stone. Stockpiling materials would cause some temporary disturbance; however, all areas would be revegetated with native plants.
Cutting along trails	Vegetation adjacent to trails would be lost because trail use would not be managed to prevent trail widening and because vegetation along trail corridors would be cut wider than in other alternatives.	Vegetation loss from trail widening would be substantially reduced from Alternative 1 because trail use would be more actively managed and trail corridors would be cut narrower.	Because the trail system is longer than in Alternative 2, there would be slightly more vegetation cut overall. Vegetation loss from trail widening would be as in Alternative 2.	Because this alternative proposes the longest trail system, and because vegetation would be cut according to CCC standards on some trails, there would be more vegetation cut than in any other alternative. Vegetation loss from trail widening would be as in Alternative 2.
Vista cutting	There would be no vegetation cut for vistas.	Same as Alternative 1.	Vegetative communities would change in vista cuts over time.	This alternative would have the greatest effect on vegetation related to vista management. Vegetative communities would change in vista cuts over time.
Non-native species introductions	Although only a small amount of soil and gravel would be imported, none would be sterilized. Therefore this alternative would have a high potential for introducing non-native plants.	All soil and gravel would be imported. If materials were sterilized, there would be a low potential for introducing non-native plants. If sterilization proved impractical, there would be a very high potential for introducing non-natives.	There would be more material imported than Alternatives 1, and less than Alternatives 2 and 4. If materials were sterilized, there would be a low potential for introducing non-native plants. If sterilization proved impractical, there would be a moderate potential for introducing non-natives.	There would be more materials imported than Alternatives 1 and 3, and less than Alternative 2. If materials were sterilized, there would be a low potential for introducing non-native plants. If sterilization proved impractical, there would be a moderate potential for introducing non-natives.
Large undeveloped habitat areas (50 acres or larger)	The number of large habitat areas would remain unchanged.	This alternative would protect all existing large undeveloped habitats and would create ten additional large habitat areas, including one of the largest in the park on the west side of the Western Mountains.	This alternative would result in four large habitat areas being fragmented. It would create two additional large habitat areas; both would be on the west side of MDI.	This alternative would dissect 12 large habitat areas - most on the east side of MDI. It would create no new large habitat areas.
Cultural Resources	In this alternative, the greatest number of historic features would be lost due to lack of or improper maintenance. Non-historic features would continue to be added to the trail system. The integrity of the historic trail system would not be improved.	The cultural integrity of individual trail features would be maintained better than in Alternative 1, but less well than in Alternatives 3 and 4, because many non-historic features would be added. The cultural integrity of the system would be diminished by the removal of 18 miles of trails from the system.	The cultural integrity of individual trail features would be maintained better than in Alternatives 1 and 2, but less than in Alternative 4. The integrity of the trail system as a whole would be improved over Alternatives 1 and 2 with the addition of eight miles of abandoned trails to the maintained system.	Individual trail features would be maintained as well as in Alternative 3, and more features would be protected than in any other alternative. The overall cultural integrity of the system would be greatly enhanced with the addition of 35 miles of abandoned trails to the maintained system.

TABLE 3. MATRIX OF ENVIRONMENTAL EFFECTS

Topic	Alternative 1: No Action	Alternative 2: Rehabilitation with Emphasis on Protecting Natural Resources	Alternative 3: Rehabilitation to Protect Natural and Cultural Resources (NPS Preferred)	Alternative 4: Rehabilitation with Emphasis on Preserving Cultural Resources
Communities and Neighbors ***Trail availability and tourism***	Trails would continue to degrade, eventually resulting in trail closures, and users (both park neighbors and visitors) would be turned away.	The trail system would continue to provide opportunities for recreation by park neighbors and draw tourists to the region.	Same as Alternative 2.	An enlarged trail system would draw tourists into the region, perhaps in greater number than other alternatives.
Connector trails	With direct walking access to the park, community life would be enhanced slightly. Connector trails also might increase the need for policing to prevent parking, trespassing, and vandalism on private properties.	Effects of connector trails would be the same as in Alternative 1.	With more connector trails, community life might be enhanced more than in Alternatives 1 and 2. However, negative effects such as increased need for policing to prevent parking, trespassing, and vandalism on private properties might also increase.	Effects of connector trails would be the same as Alternative 3.
Vehicle traffic	There would be little or no increase in truck traffic from transporting materials for trail rehabilitation.	Truck traffic on local roads would increase slightly for approximately 10 years to support rehabilitation efforts. There would be approximately 120 dump truck loads per summer. Vehicle traffic in and adjacent to the park would increase slightly as work crews commute to the park and then move to work sites.	Same as Alternative 2, but there would be approximately 54 dump truck loads per summer.	Same as Alternative 2, but there would be approximately 62 dump truck loads per summer.
Economic effects	There would be little effect, either positive or negative, on the local economy.	Trail rehabilitation would require additional staff. This would have a small ripple effect on local businesses for housing, services, and supplies. Rehabilitation would require purchase and transport of materials. For example, an estimated 11,970 cubic yards of materials would be needed.	Economic effects would be similar to Alternative 2, except that fewer materials (5,400 cubic yards) would be purchased and transported from outside the park.	Economic effects would be similar to Alternatives 2 and 3, except that 6,240 cubic yards of materials would be purchased and transported from outside the park.

TABLE 3. MATRIX OF ENVIRONMENTAL EFFECTS

Topic	Alternative 1: No Action	Alternative 2: Rehabilitation with Emphasis on Protecting Natural Resources	Alternative 3: Rehabilitation to Protect Natural and Cultural Resources (NPS Preferred)	Alternative 4: Rehabilitation with Emphasis on Preserving Cultural Resources
Visitor Use and Experiences ***Diversity of opportunities***	Trails would continue to offer hikers diverse opportunities based on habitat, difficulty, risk, etc. With minimal maintenance, opportunities for visitors to experience historic trail features would diminish over time. Without monitoring and management of trail use, opportunities for solitude on some trails might diminish over time. The balance of opportunities for hiking on main-tained trails, abandoned trails and off trail would remain unchanged. Trail closures due to continued deterioration of the trail system would result in loss of hiking opportunities over time.	Trails would continue to offer hikers diverse opportunities based on habitat, difficulty, risk, etc., but it would be less than all other alternatives because of the substantially reduced size of the trail system. With monitoring and management of trail use, opportunities for solitude on some trails would be preserved. Opportunities for hiking on abandoned trails and off trail would be increased over Alternative 1; opportunities for hiking on maintained trails would be reduced.	Trails would offer hikers a greater diversity of opportunities than Alternatives 1 and 2 because of the slightly increased size of the trail system. Trail opportunities would be less diverse than Alternative 4. With monitoring and management of trail use, opportunities for solitude on some trails would be preserved. Opportunities for hiking on abandoned trails and off trail would be decreased somewhat from Alternative 1 and decreased greatly compared with Alternative 2.	Trails would offer hikers the greatest diversity of opportunities of all alternatives based on habitat, difficulty, risk, etc., because of the greatly increased size of the trail system. With monitoring and management of trail use, opportunities for solitude on some trails would be preserved. Opportunities for hiking on abandoned trails and off trail would be decreased greatly as compared with all other alternatives
Right-of-ways on private lands	Hiking opportunities on trails connecting to outside the park might be lost because right-of-ways are not monitored and preserved.	Hiking opportunities on trails connecting to outside the park would usually be maintained because right-of-ways are monitored and preserved.	Same as Alternative 2.	Same as Alternative 2.
Safety	Trails would lack stable tread and would be more difficult to traverse or follow than in other alternatives, resulting in lost hikers and hiker injuries.	Fewer incidents of lost hikers and hiker injuries would occur than in Alternative 1 because of improved maintenance and marking.	Same as Alternative 2.	Same as Alternative 2.
Opportunities for disabled hikers	Disabled persons would not be able to access a variety of park habitats.	Disabled persons would be able to experience a variety of park habitats.	Same as Alternative 2.	Same as Alternative *2*.
Dogs	Some hikers would be pleased that they could hike with dogs; others would be disturbed by hikers with dogs.	Some hikers would be pleased that dogs are not allowed on trails; others would miss the lost opportunity to hike with their pets.	Opportunities for hikers with dogs would be similar to Alternative 2, with dogs prohibited on a few more trails.	Opportunities for hikers with dogs would be the same as Alternative 1.

CONSULTATION AND COORDINATION

HISTORY OF PLANNING AND PUBLIC INVOLVEMENT

Planning for the trail system in Acadia National Park began as early as 1995 with in-house meetings between park staff and the National Park Service's Olmsted Center for Landscape Preservation. Since then, historical research has been completed and important documents related to trails and trails management have been duplicated and archived for preservation. The Olmsted Center has prepared a database of the existing condition of park trails, including abandoned trails. A cultural landscape report documenting the history and significance of the trail system and a nomination to the National Register of Historic Places are nearing completion. Additionally, a report addressing treatment and maintenance guidelines for the trail system is being prepared.

Public involvement in scoping for this *Draft Hiking Trails Management Plan* has included the following presentations, public meetings, and open house sessions.

1. Park staff met with local trail experts especially knowledgeable about abandoned trails on October 24, 1998. The purpose of the meeting was to garner comments on draft trail system goals, receive suggestions for abandoned trails that could be reopened, potential new trails or segments needed, and existing trails that might be excluded from the trail system. The group also tested criteria developed by the park to evaluate trails to determine which trails or trail segments should be part of the maintained trail system.

2. During the summer of 1999, the NPS hosted four workshops on Mount Desert Island:

College of the Atlantic	June 14	23 people
Somesville Fire Station	July 29	14 people
Blackwoods Campground	August 16	3 people
Seawall Campground	August 18	7 people

The purpose of these workshops was to solicit proposals for trail additions and deletions and obtain comments on draft trail system goals and on the criteria used to evaluate trails for inclusion in or exclusion from the system.

3. Park staff made presentations to the Seal Harbor and Bar Harbor Village Improvement Associations about the trails planning process, and members were encouraged to provide written comments to the superintendent about the trails planning effort. Seven people responded with comments.

4. On September 23, 1999, the park held an open house for members of the Village Connector Trails Committee, the Bar Harbor Village Improvement Association, and Friends of Acadia staff and members of their trails and carriage road committee.

5. Park staff also contacted by mail (August 17, 1999) the leaders of three local summer camps, College of the Atlantic, the Bar Harbor YMCA, and Camp Beech Cliff, requesting meetings to discuss trails planning issues and concerns. None responded to the invitation.

6. Park staff contacted by telephone and mail the leaders of six Maine Native American tribes to schedule meetings to discuss their interests and concerns related to trails planning. However, there was no response to these contacts.

Throughout this preliminary planning process, the NPS conducted informal consultations with the State Historic Planning Officer (SHPO).

COMPLIANCE REQUIREMENTS

Cultural Resources

Acadia's historic trail system on Mount Desert Island will be nominated for the National Register of Historic Places. To comply with the National Historic Preservation Act, the NPS must carefully consider any actions that affect a National Register property's character, integrity, or use, or the qualities that qualify a property for listing in the National Register of Historic Places. This Draft Plan/EA is such an action. Throughout this planning, the NPS has treated and will continue to treat the trail system as a cultural resource of national significance.

The National Park Service will consult with the SHPO regarding this plan as required under the National Historic Preservation Act and NPS policies. Consultation will ensure that important cultural resources are protected. NPS cultural resources staff will also review and comment on this plan.

Before any ground disturbing activities, archeologists will be consulted to determine possible effects on archeological resources. Any such studies will be carried out and evaluated for effect before construction, in consultation with the SHPO.

Natural Resources

All future actions related to this plan will comply with the Clean Water Act, the Maine Natural Resources Protection Act, and/or other federal, state, or local laws protecting natural resources. The Army Corps of Engineers and/or the Maine Department of Environmental Protection will be consulted to determine if permits must be obtained in advance of specific ground disturbing activities resulting from this plan. Any actions in floodplains or wetlands will comply with Executive Orders 11988 and 11990 (floodplain and wetlands protection).

A copy of this plan with a request for comments will be sent to the U. S. Fish and Wildlife Service and the Maine Department of Inland Fisheries and Wildlife to ensure the protection of threatened and endangered species and critical habitat. Before individual trails are upgraded or developed, the park botanist and wildlife biologist will conduct on-site surveys to determine the presence of any threatened and endangered species, or other natural resource concerns, and recommend actions to protect natural resources during trail rehabilitation and maintenance.

PLANNING TEAM AND CONTRIBUTORS

Acadia National Park

Karen Anderson, GIS Specialist	Planning Team Member
Christian Barter, Trails Work Leader	Planning Team Member
Mike Blaney, Land Resource Specialist	Consultant
Robert Breen, Air and Water Quality Specialist	Consultant
Len Bobinchock, Deputy Superintendent	Planning Team Member
David Buccello, Chief Ranger	Planning Team Member
Peter Colman, Trails Worker	Planning Team Member
Bruce Connery, Biologist, Wildlife Resources	Consultant
Judith Hazen Connery, Natural Resource Specialist	Planning Team Leader/Writer
Linda Gregory, Botanist	Consultant
Paul F. Haertel, Superintendent	Decision Maker
Charles Jacobi, Resource Specialist, Visitor Use	Planning Team Leader/Writer
Keith Johnston, Trails Work Leader	Planning Team Member
Dave Kari, Trails Work Leader	Planning Team Member
David Manski, Chief of Resource Management	Planning Team Member
Gary Stellpflug, Trails Foreman	Planning Team Leader/Writer
Jim Vekasi, Chief of Maintenance	Planning Team Member
Deb Wade, Chief of Interpretation	Planning Team Member

Friends of Acadia

Stephanie Clement	Consultant
Ken Olson	Consultant
Marla Major	Planning Team Member

National Park Service Olmsted Center for Landscape Preservation

Margie Coffin	Consultant/reviewer
Lauren Meier	Consultant/reviewer
Tracy Stakely	Consultant/reviewer

National Park Service Rivers and Trails Office

Steve Golden	Consultant
Julie Isbill	Consultant
Burnham Martin	Consultant

PARTIAL LIST OF RECIPIENTS OF THIS PLAN

Government Organizations

Acadia National Park Advisory Commission
Baxter State Park
Hancock County Planning Commission
ME Bureau of Parks and Lands
ME Dept. of Environmental Protection
ME Dept. of Inland Fisheries and Wildlife
ME Dept. of Transportation
ME Natural Areas Program
ME State Historic Preservation Office
ME State Planning Office
NPS Rivers and Trails Office
Town of Bar Harbor
Town of Gouldsboro
Town of Isle au Haut
Town of Mount Desert
Town of Southwest Harbor
Town of Tremont
Town of Winter Harbor
University of Maine, Forest Recreation Program
U.S. Fish and Wildlife Service
U.S. Geological Survey, Biological Resources Division

Political Representatives

Maine Congressional Delegation
State Representatives

Native American Groups

Aroostook Band of Micmac Indians
Penobscot Nation
Passamaquoddy Tribe, Pleasant Point Reservation
Passamaquoddy Tribe, Indian Township Reservation
Houlton Band of Malaseet Indians

Nonprofit Conservation Groups

Friends of Acadia
Appalachian Mountain Club
National Parks and Conservation Association
The Wilderness Society
Maine Coast Heritage Trust
ME Chapter, Sierra Club

Community Organizations

Footloose Friends
Bar Harbor Historical Society

MDI Historical Society
Tremont Historical Society
Bar Harbor Village Improvement Association
Seal Harbor Village Improvement Association
Northeast Harbor Village Improvement Association
Bar Harbor Chamber of Commerce
Mount Desert Chamber of Commerce
Southwest Harbor Chamber of Commerce
Winter Harbor Chamber of Commerce
MDI Bike Association

Local Businesses:
Jackson Laboratory
Kebo Golf Club
Acadia Mountain Guides
Atlantic Climbing School
Downeast Nature Tours
Wildwood Stables (park concession)
Acadia Corporation (park concession)
Mount Desert Water Company
Bar Harbor Water Company

Other Organizations
College of the Atlantic
MDI YMCA
Camp Beech Cliff

GLOSSARY

Abandoned Trails: Trails that the NPS no longer maps, marks, or maintains and that are not advertised for public use. Some abandoned trails are still easily found and followed and others have disappeared from the landscape.

Character-defining features: Exemplary characteristics of a historic structure or object or landscape that contribute to its historic character and aid in the understanding of its cultural value. Character-defining features of trails, for example, may include route (Giant Slide Trail), construction (Beachcroft Trail), geological features (Bubble Rock on the South Bubble Trail), biological resources or habitats (Great Meadow on the Jesup Trail), or views (Gorham Mountain Trail).

Closed Trails: A temporary or long-term regulatory prohibition of visitor use of a trail to protect public safety or resources.

Guidance: Refers to trail names, signs, marking, and maintenance techniques used to keep hikers on trails.

Habitat fragmentation: The process by which habitats are subdivided into increasingly smaller units, resulting in their increased insularity as well as an overall loss of habitat area.

Hardening: The manual, mechanical, or chemical compaction of the trail tread resulting in a hard, flat surface that sheets water effectively and resists the indentations that are created by use.

Historic: A term used to describe a person, place or object that is significant to a culture.

Historical: A term that refers to terms or themes in history.

Historical significance: Meaning or value based on evaluation criteria for inclusion on the National Register of Historic Sites given to a structure, landscape, object, or site; these criteria are based on associations with important persons or events in U.S. history and the degree of integrity remaining to the structure, etc..

Rare species: Any species that is considered restricted and limited throughout all or a significant portion of its range. This designation does not necessarily imply that populations of the species are significantly reduced or threatened with reduction. No legally required federal protection is associated with this designation.

Reconstruction: The act of rebuilding a missing historic feature. For example, a missing gazebo might be rebuilt in a historic garden. Usually, this is only done if there is extensive documentation to accurately show what the historic condition of the feature was like, and the missing feature is necessary to adequately interpret the property. Reconstruction is rarely done in cultural landscapes.

Rehabilitate: To preserve the historic character of a property, while making allowances for new uses. Measures are taken to preserve those historic features and characteristics that remain. Compatible additions may be made for modern needs.

Preserve: To sustain a trail or other property exactly as it is at the present time. The focus in on preventing any further deterioration of the trail by using proper maintenance practices that do not negatively effect the property and do not promote further loss or decay of historic materials.

Restore: To rebuild a property to a very specific time period. The period chosen is usually the period that gives the property its most significance. All additions that do not date to this period are removed. No new uses can be incorporated. In a restoration, historic materials are used, where applicable, to replicate what would have been done in the historic period.

Rock paving: The use of flat sided rocks to form the surface or tread of a trail.

Scree walls: Lines of rock that define one or both sides of the trail tread.

Social Trail: A trail that is not officially designated or maintained that develops by continuous human use rather than by design and construction.

Stabilize: To prevent further deterioration of a landscape or structure, using the least amount of intervention necessary. Stabilization may also be referred to as Preservation Maintenance. The tasks performed should not take away from the remaining historic integrity of the landscape. The focus is to preserve what is currently present so that no historic features are lost through negligence or damaging maintenance practices. For archaeological sites, stabilization work often focuses on moderating or preventing erosion.

Trail: A footpath across a wild area or region, usually cleared of vegetation, and sometimes graded or otherwise constructed for ease of access and durability.

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National Park Service
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National Park Service
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National Park Service
1997 Strategic management plans. Acadia National Park, Saint Croix Island International Historic Site, Maine Acadian Culture Project, Maine. Acadia National Park, Maine. September. 74pp.

National Park Service
1992 General management plan. Acadia National Park, Maine. October. 99pp.

Trails and Wildlife Task Force, Colorado State Parks, Hellmund Associates
1998 Planning trails with wildlife in mind, a handbook for trail planners. Colorado State Parks, Denver, Colorado. September. 51pp.

APPENDIX 1: RELEVANT EXERPTS FROM THE GENERAL MANAGEMENT PLAN

Upgrade Trail System

A comprehensive trail management plan will be developed and implemented that provides a systematic approach to maintaining trails, restoring abandoned trails, and constructing new trails. Erosion and safety problems will be alleviated by upgrading routine and cyclical trail maintenance. Understanding the trail system at Acadia is critical to understanding the history of the park and its significance as a scenic reservation. The historic significance of trails on Mount Desert Island will be evaluated. To avoid adverse effects on currently undisturbed species and habitats, developing new or abandoned trails will be limited to alignments that create loops in heavily used areas or routes that offer access from park campgrounds, towns, and villages. *Development will be limited to existing trailhead parking* (our emphasis). (National Park Service 1992:33)

Evaluate, Treat, and Maintain Cultural Landscapes

In addition to the carriage road and Park Loop Road landscapes, the environs of other key historic properties in the park will be evaluated for management as cultural landscapes in conjunction with their nomination to the national register. (National Park Service 1992:34)

Improve Nonmotorized Access to the Park

Park access for bicyclists, joggers, walkers, cross-country skiers, and visitors using wheelchairs will be improved on Mount Desert Island…Other new connectors will be studied and constructed if feasible. (National Park Service 1992:39)

Develop Cooperative Trail Management

The National Park Service will pursue cooperative relationships with local governments, village improvement societies and other organizations, and private landowners to develop comprehensive trail plans for Mount Desert Island. The Park Service will support existing connector trails and the development of new ones to provide public access the park's hiking trail and carriage road systems from towns and villages on Mount Desert Island. (National Park Service 1992:40)

APPENDIX 2: TRAILS EVALUATION PROCESS

As part of this planning effort, the NPS developed a two-tiered method described below to objectively review all trails on MDI for inclusion into the park trail system. Three staff members familiar with park trails rated 169 trails, including all currently maintained trails, and all abandoned and new trails proposed for inclusion or deletion by park staff or the public.

This three person team operated under the following assumptions:

1. Properly maintained trails are safe for the vast majority of visitors. Safety concerns for trails were addressed in the Visitor Experience evaluation criteria. The Visitor Experience criteria rating was lowered due to safety concerns only for trails that affected the safety of other visitors (for example, hazards to auto traffic) or when trails crossed roads or required roadside walking access.

2. Trails can be properly maintained with expected staffing and funding from the Acadia Trails Forever Program.

3. Many natural resource concerns can be mitigated through trail maintenance or temporary closures.

4. Most trails have little impact to neighbors and communities because they do not connect to adjacent villages or private lands.

For the first tier evaluation, the team developed and weighted these four criteria:

1. Cultural Resource Values – Factor Weighting Value = 5

2. Effects on Natural Resources – Factor Weighting Value = 5

3. Effects on Communities and Neighbors – Factor Weighting Value = 2

4. Visitor Experience Values – Factor Weighting Value 4 =

Table 1 describes each criteria in more detail.

For all existing trails (as described in the parks trail maintenance inventory), and all trail proposals (abandoned and new), the team scored each criterion on a scale of 0 to 10. The scores for each criterion were multiplied by the factor weighting value (2, 4, or 5) to obtain a weighted score. These weighted scores for each criterion were then added to obtain a total score for the trail.

For example, the Precipice Trail scored the maximum of 10 on the cultural resource value criterion. Ten multiplied by the Factor Weighting Value of 5 gave a total cultural resource score of 50. Because the Precipice Trail was felt to have substantial negative effects on natural resources, the team gave it a score of four on this criterion. Four multiplied by the Factor

Weighting Value of 5 gave the Precipice Trail a total natural resource score of 20. Adding these total scores and the total scores of the other two criteria gave the Precipice Trail an overall score of 120. It should be noted that two criteria are values and two criteria are effects. For the values criteria, a higher score indicates a higher value. For the effects criteria, a higher score reflects fewer negative impacts.

The highest possible trail score for existing and abandoned trails was 160 points. For proposed new trails, the highest possible score was 110 points, because new trails generally had little or no cultural resource value. All total numerical scores were converted to percentages to allow comparisons between currently maintained, abandoned, and new trails. All numerical and percentage scores are shown in Table 2. Higher percentage scores generally indicated a greater likelihood for retaining or adding a trail to the system.

The team used the percentage scores to help develop the preferred alternative. A second team of six to eight park staff members considered each currently maintained trail, each proposed trail deletion, and each proposed trail addition (abandoned and new). The discussion started with a review of each trail's percentage score and point scores on the four criteria.

The second team then moved into the second phase of evaluation. This evaluation focused on evaluating each trail's contribution to the trail system. Here, the following questions were considered:

- Does this trail contribute to meeting trail system goals?
- Specifically, relative to other trails, how does this trail contribute to providing diverse visitor experiences? Do other trails nearby provide the same experience?
- Does this trail, by increasing use there or reducing opportunities for low density recreation, compromise the General Management Plan goal of preservation of the relatively undeveloped quality of the West Side of MDI?
- Is this trail or trail segment required in order to access other trails?

Using the park's geographic information system (GIS), a computerized mapping and analysis system, the evaluation team was able to add and subtract individual trails on maps to view alternative configurations of the trail system. After deciding what trails would be added to or deleted from the system, a final systemwide review was made to re-examine the questions posed previously, with an emphasis on examining the trail system as a whole. The second team then asked these questions:

- Is this system sustainable?
- Does the system possess enough integrity to retain its historic significance?

To craft alternatives 2 and 4, different techniques were used. In Alternative 2, the second team looked at what trails could offer greater protection of natural resources by removing them from the system. Creating an alternative that emphasized protecting natural resources based solely on the evaluation scores - that is, eliminating trails with the lowest scores in the natural resource criteria - would have resulted in dismantling the hiking trail system as we know it. Too many trails, especially popular ones, are located in sensitive natural resource areas such as summits or along streams and shores. Instead, in the preferred alternative the second team looked to those trails suggested for deletion by park staff and the public, and to trails that could be deleted from

the system without dismantling it. These deletions would still leave some semblance of an interconnected trail system intact.

Based on the evaluation scores, creating an alternative that favored cultural resources was easier. The second team added to this alternative almost all trails that scored 30 or higher on the cultural resource criteria. These included most of the important historic trails that retained some degree of integrity. A few trails with cultural resource criterion scores under 30 were also considered important enough to include in this alternative.

Three trails that scored high were excluded from alternatives three and four: the Gurnee Path, the Goat Trail, and the South Bubble Cliff Trail.

The Gurnee path was not included in the proposed trail systems because it was considered unsafe to access. It would be difficult to protect vehicles on Route 3, below the trail, from rocks dislodged by hikers, and the trail experience has been severely degraded by traffic noise and the placement of utility lines between the trail and views of Frenchman Bay.

The Goat Trail on Pemetic Mountain was not included because it would be impossible to protect vehicles below the trail, on the Park Loop Road, from falling rocks dislodged by hikers, and there is no parking where the trail begins along the Park Loop Road.

The South Bubble Cliff Trail was not included because of conflicts with technical rock climbing, including the danger of falling rocks.

TABLE 4. TRAILS EVALUATION GUIDELINE (CONSIDERS TRAIL ALONE, NOT AS PART OF SYSTEM)

Criteria	Score 0	5 10
Cultural Resources (FWV 5)	Not historically significant as determined by National Register Nomination (retains little integrity, not highly crafted construction, not associated with significant person, place, or event, was not once part of or fulfills intent of trail that was part of system as of 1947). Does not provide access to cultural resources other than the trail itself. Compromises Native American sacred sites/values.	Historically significant as determined by National Register Nomination (retains most integrity, highly crafted construction, associated with significant person, place, or event, was once part of or fulfills intent of trail that was part of system as of 1947). Provides access to cultural resources other than the trail itself. Protects Native American sacred sites/values.
Natural Resources (FWV 5)	Affects Federal, State, or locally rare species or sensitive habitats. Large natural areas: 1. trailless area greater than 50 acres. 2. trail divides habitat into two large blocks of land. 3. habitat divided is especially susceptible to human caused disturbance. 4. trail increases density of trails in/near pristine or high quality area. 5. trail crosses small, high quality habitat patches. High erosion potential difficult to mitigate. No adverse effects on environment from mining/harvesting native materials (inside or outside park). Less than 25 feet from water (stream, lake, vernal pool, ocean) Near/in existing or potential high quality beaver habitat. Risk of contamination to public water supply from improper disposal of human waste is high because trail is less than 200 feet from water, landscape and soil characteristics preclude effective decomposition, visitor use is high, and no toilet is available (or will be).	Does not affect Federal, State, or locally rare species or sensitive habitats. Large natural areas: 1. trailless area less than 50 acres. 2. trail divides habitat into one small and one large block of land. 3. habitat divided is not especially susceptible to human caused disturbance. 4. trail does not increase density of trails in/near pristine/high quality habitat. 5. trail crosses small, high quality habitat patches. Low erosion potential or easy to mitigate erosion. No adverse effects on environment from mining/harvesting native materials (inside or outside park). More than 25 feet from water (stream, lake, vernal pool, ocean). Not near/in existing or potential high quality beaver habitat. Risk of contamination to public water supply from improper disposal of human waste is low because trail is more than 200 feet from water, landscape and soil characteristics promote effective decomposition, visitor use is low, and a toilet is available.
Communities & Neighbors (FWV 2)	Does not connect with towns or villages (GMP/for new trails only). Increases parking/traffic problems outside park and need for policing. Reduces privacy of park neighbors. Does not connect to concentrations of residents or visitors (existing trails). Detracts from community life for residents. Increases maintenance responsibilities for other trail maintainers (VIAs).	Connects with towns and villages. (GMP/for new trails only) Does not increase parking/traffic problems outside park or need for policing. Does not reduce privacy of neighbors. Connects to concentrations of residents or visitors. (existing trails) Enhances community life for residents. Reduces maintenance responsibilities of other trail maintainers (VIAs).

TABLE 4. TRAILS EVALUATION GUIDELINE CONTINUED (CONSIDERS TRAIL ALONE, NOT AS PART OF SYSTEM)

Visitor Experiences (FWV 4)	Does not provide loop in heavily used area. (GMP/for new trails only) Does not connect with park campgrounds. (for new trails only) Does not offer outstanding features of interest to hikers. (views, flora, fauna) Does not form loop or contribute to loop opportunities. (GMP/existing trails) Adds to parking congestion or creates new problems. Not accessible through existing parking or bus system. Does not provide exceptional education opportunities. Provides no opportunity for special populations. Contributes to visitor confusion or visitor conflicts (e.g. climbing/hiking).	Provides loop in heavily used area. (GMP/for new trails only) Connects with park campgrounds (for new trails only). Offers outstanding features of interest to hikers. (views, flora, fauna, thrills) Forms a loop or contributes to loop opportunity. (GMP/for existing trails) Does not add to parking congestion or create new problems. Accessible through existing parking or bus system. Provides exceptional education opportunities. Enhances opportunities for special populations. Reduces visitor confusion or conflicts.

TABLE 5. TRAIL EVALUATION SCORES GROUPED BY TRAIL STATUS FOR ABANDONED (TRAIL STATUS=A IN COLUMN 3)), CURRENTLY MAINTAINED (STATUS=M), AND NEWLY PROPOSED TRAILS (STATUS=N) BASED ON CULTURAL RESOURCE, NATURAL RESOURCE, COMMUNITIES AND NEIGHBORS, AND VISITOR EXPERIENCE CRITERIA

Trail Name	Trail ID Number	Trail Status 1999	Trail Pro-Posal[7]	Cultural Resource Score (Max=50)	Natural Resource Score (Max=50)	Communities and Neighbors Score (Max=20)	Visitor Experience Score (Max=40)	Total Score (Max=160 or 110)	Percent Score (see text)
Gurnee Path	352	A	Yes	45	45	12	28	130	81.25
Homans Path	349	A	Yes	45	40	10	32	127	79.38
Upper Ladder Trail	334	A	No	40	40	10	32	122	76.25
Orange and Black Path (Prec to Bear Brk Tr)	348	A	Yes	40	40	10	32	122	76.25
BH cnctrs (319, 320, 321-Stratheden, Kebo, Gorge)	734	A	Yes	35	40	12	32	119	74.38
Schooner Head Road path	362	A	Yes	40	40	12	20	112	70.00
Great Cave Path	347	A	Yes	45	20	10	36	111	69.38
Green Mountain Railway	357	A	No	50	20	10	20	100	62.50
South Bubble Cliff Trail	451	A	No	40	25	10	24	99	61.88
North/Middle Bubble Cliff Trail	459	A	No	35	25	10	28	98	61.25
Beech Cliff Trail to Lurvey Spring	625	A	No	40	15	10	32	97	60.63
Beech Mountain Road/path (+618)	624	A	Yes	35	15	14	30	94	58.75
Golf Links to Norumbega Mtn	530	A	No	25	35	10	24	94	58.75
Canon Brk to Bowl (333,358)	732	A	Yes	25	30	8	28	91	56.88
Dane Farm Trail	713	A	Yes	30	35	10	16	91	56.88
Day Mountain Caves Trail	424	A	No	25	30	10	24	89	55.63
Red and White Path	335	A	Yes	30	20	10	28	88	55.00
Jordan South End Path	409	A	Yes	20	30	10	28	88	55.00
Potholes Area Trails (342, 343, 332)	733	A	Yes	30	20	6	32	88	55.00
Dorr's Bicycle Path (354)	331	A	Yes	45	15	14	12	86	53.75
Blue and White Path (also 366)	337	A	Yes	35	20	10	21	86	53.75
Goat Trail, Pemetic Mountain	444	A	Yes	35	20	10	20	85	53.13
Boyd Road/path	449	A	Yes	25	25	10	24	84	52.50
Spring Trail	621	A	Yes	30	20	10	24	84	52.50
Amphitheatre Trail, south (north?)	528	A	Yes	25	25	10	24	84	52.50
Southwest Valley Road/Path	316	A	No	30	20	10	24	84	52.50
Amphitheatre Trail, (Asticou Tr to LHB Br.)	523	A	Yes	30	20	10	24	84	52.50

[7] Trail proposals came from interested citizens and park staff, and a “yes” refers to a proposed new trail or the proposed reopening of an abandoned trail.

TABLE 5. TRAIL EVALUATION SCORES GROUPED BY TRAIL STATUS FOR ABANDONED (TRAIL STATUS=A IN COLUMN 3)), CURRENTLY MAINTAINED (STATUS=M), AND NEWLY PROPOSED TRAILS (STATUS=N) BASED ON CULTURAL RESOURCE, NATURAL RESOURCE, COMMUNITIES AND NEIGHBORS, AND VISITOR EXPERIENCE CRITERIA

Trail Name	Trail ID Number	Trail Status 1999	Trail Pro-Posal[7]	Cultural Resource Score (Max=50)	Natural Resource Score (Max=50)	Communities and Neighbors Score (Max=20)	Visitor Experience Score (Max=40)	Total Score (Max=160 or 110)	Percent Score (see text)
Echo Lake Trail (to St Sauveur Pkg)	622	A	Yes	20	30	10	24	84	52.50
Chasm Path/Waldron Bates Mem Path	525	A	Yes	35	15	10	24	84	52.50
Pine Hill to Bernard Mtn	606	A	No	25	25	12	20	82	51.25
Great Hill to Duck Brook (+306)	310	A	Yes	20	30	12	20	82	51.25
Aunt Betty's Pond Path	526	A	Yes	30	15	10	24	79	49.38
McFarland Path	524	A	Yes	30	15	10	24	79	49.38
Curran Path	315	A	Yes	40	5	10	24	79	49.38
Grandgent/Maple Spring(58)Connector (slope)	701	A	Yes	25	25	10	16	76	47.50
Grandgent/Maple Spring(58)Connector (strm)	731	A	Yes	25	20	10	20	75	46.88
Quarry Trail	628	A	Yes	25	20	14	16	75	46.88
Ox Hill Summit to Day Mtn	421	A	Yes	25	30	8	12	75	46.88
East Ridge Trail	350	A	Yes	25	15	10	24	74	46.25
Brown Mountain, North	521	A	Yes	20	20	8	16	64	40.00
Old Bridle Path to Acadian Ridge Tr.	702	A	Yes	25	10	10	16	61	38.13
McFarland Hill to Lakewood (incl. 309)	705	A	Yes	10	20	10	20	60	37.50
Jordan Pond Seaside Trail	401	M	No	50	45	12	28	135	84.38
Perpendicular Trail	119	M	No	50	35	10	36	131	81.88
Emery Path/ Dorr Mtn East Face Tr	15	M	No	50	35	10	32	127	79.38
Ladder Trail	64	M	Yes	50	35	10	32	127	79.38
Kurt Diederich Trail	16	M	No	50	30	10	32	122	76.25
Precipice Trail	11	M	No	50	20	10	40	120	75.00
Asticou Trail	49	M	No	45	30	14	28	117	73.13
Bass Harbor Head Light Trail	129	M	No	40	30	10	36	116	72.50
Beachcroft Trail	13	M	No	50	20	10	36	116	72.50
Beech Mountain South Ridge Trail	109	M	No	35	35	12	32	114	71.25
Champlain East Face Trail	12	M	No	50	20	10	32	112	70.00
Beech Cliff Ladder Trail	106	M	No	40	30	10	32	112	70.00
Jordan Cliffs Trail	48	M	No	45	15	10	40	110	68.75
Stratheden Trail	24	M	Yes	40	35	10	24	109	68.13

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Trail Name	Trail ID Number	Trail Status 1999	Trail Pro-Posal[7]	Cultural Resource Score (Max=50)	Natural Resource Score (Max=50)	Communities and Neighbors Score (Max=20)	Visitor Experience Score (Max=40)	Total Score (Max=160 or 110)	Percent Score (see text)
Flying Mountain Trail	105	M	No	40	15	12	40	107	66.88
Great Pond Trail	118	M	No	45	10	12	40	107	66.88
A. Murray Young Path	25	M	No	45	15	10	36	106	66.25
Wonderland	198	M	No	25	35	14	32	106	66.25
Day Mountain Trail	37	M	No	25	35	14	32	106	66.25
Beehive Trail	7	M	No	45	10	10	40	105	65.63
Valley Trail	116	M	No	35	30	12	28	105	65.63
Gorge Path	28	M	No	45	10	10	40	105	65.63
Sargent Mountain South Ridge Trail	52	M	No	35	20	12	36	103	64.38
Pemetic West Cliff Trail	30	M	No	35	30	10	28	103	64.38
Gorham/Cadillac Cliffs Trail	5	M	No	35	25	10	32	102	63.75
Ocean Path	3	M	No	35	25	10	32	102	63.75
Beech Mountain Loop Trail	113	M	No	40	15	10	36	101	63.13
Penobscot Mountain Trail/Spring Trail	47	M	No	40	15	10	36	101	63.13
Great Head Trail	2	M	No	30	25	10	36	101	63.13
Canon Brook Trail	19	M	No	40	10	10	40	100	62.50
Triad Pass Trail	29	M	No	30	30	10	28	98	61.25
Mansell Mountain Trail	115	M	No	30	30	10	28	98	61.25
Razorback Trail	112	M	No	30	30	10	28	98	61.25
Bernard Mountain South Face Trail	111	M	No	30	25	10	32	97	60.63
Kebo Mountain Path/Dorr Mtn N&S	21	M	No	35	20	10	32	97	60.63
Maple Spring Trail	58	M	No	35	15	10	36	96	60.00
Jordan Pond Loop Trail	39	M	No	45	5	10	36	96	60.00
Jesup Path	14	M	No	35	10	18	32	95	59.38
Tarn Trail/Kane Path	17	M	No	45	20	10	20	95	59.38
Saint Sauveur Trail	102	M	No	30	30	10	24	94	58.75
Jordan Pond House to Stepping Stones	46	M	No	35	25	10	24	94	58.75
Jordan Stream Trail	65	M	No	40	15	10	28	93	58.13
Jordan Pond Nature Trail	45	M	No	35	20	10	28	93	58.13
Hadlock Brook Trail	57	M	No	35	20	10	28	93	58.13
Gorham Mountain Trail	4	M	No	35	10	10	36	91	56.88

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Trail Name	Trail ID Number	Trail Status 1999	Trail Pro-Posal[7]	Cultural Resource Score (Max=50)	Natural Resource Score (Max=50)	Communities and Neighbors Score (Max=20)	Visitor Experience Score (Max=40)	Total Score (Max=160 or 110)	Percent Score (see text)
Gilley Trail	125	M	No	25	40	10	16	91	56.88
Pemetic Mtn Trail/Southeast/East	31	M	No	35	10	10	36	91	56.88
Jordan Pond Carry	38	M	No	40	20	10	20	90	56.25
Great Notch Trail	122	M	No	25	30	10	24	89	55.63
Cadillac Mountain South Ridge Trail	26	M	No	35	10	12	32	89	55.63
Bear Brook Trail	10	M	No	30	15	12	32	89	55.63
Valley Peak Trail	104	M	No	30	15	12	32	89	55.63
Cadillac Mountain North Ridge Trail	34	M	No	35	15	10	28	88	55.00
Pond Trail	20	M	No	35	15	10	28	88	55.00
Amphitheatre Trail	56	M	No	30	20	10	28	88	55.00
Beech Cliff Loop Trail	114	M	No	25	25	10	28	88	55.00
North Bubble Trail	41	M	No	30	15	10	32	87	54.38
Acadia Mountain Trail	101	M	No	30	10	10	36	86	53.75
Sluiceway Trail	110	M	No	25	25	10	24	84	52.50
Norumbega, Lower - to goat trail	69	M	No	20	30	10	24	84	52.50
Norumbega Mountain Trail	60	M	No	30	15	10	28	83	51.88
Penobscot East Trail	50	M	No	25	20	10	28	83	51.88
Cadillac Mt S Ridge Tr, Eagle Crag Loop	27	M	No	25	20	10	28	83	51.88
Beech Mountain West Ridge Trail	108	M	No	30	15	10	28	83	51.88
Sargent Mountain North Ridge Trail	53	M	No	25	20	10	28	83	51.88
Parkman Mountain Trail	59	M	No	25	20	10	28	83	51.88
Cold Brook Trail	117	M	No	30	20	12	20	82	51.25
Grandgent Trail	66	M	No	25	15	10	32	82	51.25
Sieur de Monts - Tarn	18	M	No	35	25	10	12	82	51.25
Western Mtn West Ridge Trail	123	M	No	20	20	10	32	82	51.25
Canada Cliffs Trail	107	M	Yes	25	30	10	16	81	50.63
Harbor Brook Trail	55	M	No	25	20	12	24	81	50.63
Deer Brook Trail	51	M	No	30	15	10	25	80	50.00
Cadillac Summit Loop Trail	33	M	No	25	5	10	40	80	50.00
Ledge Trail	103	M	No	20	30	10	20	80	50.00
Hemlock Trail	23	M	No	20	25	10	24	79	49.38

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Trail Name	Trail ID Number	Trail Status 1999	Trail Pro-Posal[7]	Cultural Resource Score (Max=50)	Natural Resource Score (Max=50)	Communities and Neighbors Score (Max=20)	Visitor Experience Score (Max=40)	Total Score (Max=160 or 110)	Percent Score (see text)
Cadillac-Dorr Trail	22	M	No	20	25	10	24	79	49.38
Giant Slide Trail	63	M	No	30	15	10	24	79	49.38
Jordan Cliffs-closed section	736	M	Yes	25	15	10	28	78	48.75
Lower Hadlock Pond, east side	511	M	No	25	15	10	28	78	48.75
South Bubble Trail	43	M	No	25	10	10	32	77	48.13
Hunter's Beach Trail	67	M	No	25	10	14	28	77	48.13
Ship Harbor Trail	127	M	No	10	20	14	32	76	47.50
Ledge Trail, South	121	M	No	20	30	10	16	76	47.50
Bubbles-Pemetic Trail	36	M	No	25	20	10	20	75	46.88
Eagle Lake Trail	42	M	No	30	15	10	20	75	46.88
Bowl Trail	6	M	No	25	15	10	24	74	46.25
Bald Peak Trail	62	M	No	20	20	10	24	74	46.25
Bar Island Trail	1	M	No	20	15	10	28	73	45.63
Western Mountain Trail	120	M	No	25	20	10	16	71	44.38
Lower Hadlock Trail,	502	M	No	25	10	12	24	71	44.38
Parkman to Gilmore	61	M	No	20	20	10	20	70	43.75
Upper Hadlock Trail,	501	M	No	30	10	10	20	70	43.75
Hunter's Brook Trail	35	M	No	20	20	10	20	70	43.75
Beehive, West	8	M	No	20	10	10	28	68	42.50
Cadillac West Face Trail	32	M	No	20	10	10	28	68	42.50
Echo Lake Ledges	126	M	No	0	15	14	28	57	35.63
Jordan Pond Carry Spur	40	M	No	0	35	10	12	57	35.63
Sand Beach - Great Head Access	9	M	No	10	20	10	8	48	30.00
BWCG to Ocean Path/Gorham Mtn (incl 346)	709	N	Yes	0	40	10	32	82	74.55
SWCG to ocean (west side CG loops)	721	N	Yes	0	40	10	28	78	70.91
Handicap Access To Great Meadow (2)	739	N	Yes	25	30	18	36	109	68.13
Handicap Access to Great Meadow (1)	738	N	Yes	35	15	18	36	104	65.00
Duck Brook connector	714	N	Yes	0	40	16	12	68	61.82
Giant Slide reroute	712	N	Yes	0	30	14	24	68	61.82
Gatehouse/cemetary reroute	703	N	Yes	0	30	12	24	66	60.00

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Bar Harbor to EL Carr Rd	711	N	Yes	0	35	12	16	63	57.27
Bear Brook Trail to Schooner Hd Rd (328?)	704	N	Yes	25	30	12	24	91	56.88
Seawall to SWH	723	N	Yes	0	30	12	20	62	56.36
Long Pond Trail to LP FR near pond	728	N	Yes	0	35	10	16	61	55.45
HCP accessibility on Cadillac	715	N	Yes	0	10	10	40	60	54.55
Beehive to Precipice low route (maybe 329)	706	N	Yes	0	25	10	24	59	53.64
Ski trail PLR to Eagle Lake CR	710	N	Yes	0	30	12	16	58	52.73
Great Head to Anemone Cave	707	N	Yes	0	15	10	32	57	51.82
Ship Harbor to Wonderland	718	N	Yes	0	15	10	32	57	51.82
Tremont School Nature Trail	737	N	Yes	0	5	18	32	55	50.00
W Mtn Rd to Marshall Brk Fire Rd	725	N	Yes	0	30	8	16	54	49.09
Seawall to Bass Harbor Light-inland	730	N	Yes	0	10	12	32	54	49.09
Big Rocks to Hio Rd	726	N	Yes	0	15	14	24	53	48.18
Bass Harbor Light to Ship Harbor	719	N	Yes	0	15	10	28	53	48.18
SW Picnic Area to Wonderland	722	N	Yes	0	15	10	28	53	48.18
Bubble Saddle/N. Bubble dir connection	708	N	Yes	0	35	10	8	53	48.18
A loop off Hio Rd (west side)	724	N	Yes	0	15	10	24	49	44.55
Hio Rd to Western Mountains	727	N	Yes	0	10	8	28	46	41.82
W Mtn Loop along Seal Cove Pond	729	N	Yes	0	10	10	24	44	40.00
Big Heath boardwalk	720	N	Yes	0	5	10	24	39	35.45

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As the Nation’s principal conservation agency, the Department of the Interior has responsibility for most of our nationally owned public lands and natural resources. This includes fostering sound use of our land and water resources; protecting our fish, wildlife, and biological diversity; preserving the environmental and cultural values of our national parks and historical places; and providing for the enjoyment of life through outdoor recreation. The department assesses our energy and mineral resources and works to ensure that their development is in the best interests of all our people by encouraging stewardship and citizen participation in their care. The department also has a major responsibility for American Indian reservation communities and for people who live in island territories under U.S. administration.